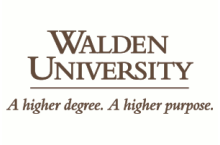

2021

Relationship between Leadership Style and Innovation Performance in Small-to-Medium-Scale Enterprises in Nigeria

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This is to certify that the doctoral dissertation by

Emmanuel Ossai

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2021

Abstract

Relationship between Leadership Style and Innovation Performance in Small-to-Medium-Scale Enterprises in Nigeria

by

Emmanuel Ossai

MS, University of Surrey, 2008

MBA, University of Jos, 1988

BS, University of Jos, 1980

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Management

Walden University

May 2021

Abstract

The Global Innovation Index recently indicated that Nigeria lags several countries in Sub-Saharan Africa in innovation inputs and outputs. It is uncertain whether leadership style in place in Nigerian enterprises is a factor in this situation. Innovation performance is the contribution of product and process innovations to profits and growth in an enterprise. The purpose of this correlational, cross-sectional, survey study was to understand the relationship between leadership style and innovation performance in small-to-medium-scale enterprises (SMEs) in Nigeria. The SME sector was selected because it is the engine of growth of the economy and the highest employer of labor, but also the most severely affected by paucity of innovation and most enterprises in the sector do not survive up to the 5th anniversary of opening for business. The full range leadership theory, and organizational learning theory formed the theoretical framework of the study. The research question investigated whether a statistically significant relationship exists between transformational, transactional, and passive-avoidant leadership styles as measured by the Multifactor Leadership Questionnaire, MLQ-Form 5X and innovation performance. An online survey of 158 randomly selected leaders of SMEs provided data for the study. These data were analyzed using Pearson correlation coefficient and multiple linear regression techniques. The results of the study indicated that the 3 leadership styles taken together positively correlated with innovation performance but taken individually, only transformational leadership style correlated with innovation and predicted innovation performance. The results may aid promotion of transformational leadership style to encourage innovation, enterprise survival, growth, and job creation, thereby contributing to positive social change.

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Dedication

I dedicate this research to my family who stood by me through thick and thin in this project. I really appreciate their extraordinary understanding and patience. More specifically, I dedicate this work to my wife, Georgina, who inspired me never to give up and sacrificed all comfort to see me through. I also dedicate this research to the up and coming entrepreneurs who have taken up the challenge of weaning themselves of government patronage and have decided to start up their own businesses.

Diligentibus Deum omnia cooperantur in bonum…….. Romans 8.28

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Chapter 1: Introduction to the Study

This study examined the relationship between leadership style and innovation performance of small- to-medium-scale enterprises (SMEs) in Nigeria. In these days of rapid technological change, market competition is largely driven by innovation. Firms that fail to innovate can lose market share and may go out of business. According to the 2013 Rural Establishment Innovation Survey (REIS) and the REIS 2014 survey of U.S. manufacturing firms, the ratio of long-lived urban based innovators to noninnovators is 49.74 to 23.91 (Wojan, Crown, & Rupasingha, 2018). Earlier, Cefis and Marsili (2005) found there was a premium of 11% increase in survival time attributable to successful innovation. In Nigeria, the situation involving failure of firms is more acute in the case of SMEs where researchers have shown that most of the enterprises do not survive up to their fifth anniversary (National Bureau of Statistics, 2013; Strydom, 2015). The purpose of this study was to examine if leadership style in SMEs has a statistically significant relationship with performance of the enterprises in terms of innovation. The reason for the focus on Nigeria is that a recent report had indicated that enterprises in the country are laggards in innovation inputs and outputs (Cornell University, INSEAD & WIPO, 2015).

The results of this study have implications for positive social change as it showed that a leadership style promotes innovation in SMEs and has been recommended for adoption by leaders of the enterprises. SMEs generate most of employment in the country and contribute to economic growth and development (Ajuwon, Ikhide, & Akotey, 2017). When enterprises become innovative, they have a higher chance of survival to continue to

generate sustainable employment and to enhance socioeconomic progress (Okpara, 2011).

In the following sections I discuss the background to the study, state the problem to be studied, the theoretical framework, research question, and hypotheses. I also describe the significance of the study indicating its contribution to the development of theory, to practice, and to positive social change.

Background of the Study

The National Bureau of Statistics (NBS) reported that SMEs are responsible for 84% of all jobs and 48% of GDP in Nigeria (NBS, 2013). The trend is rising as it was found during the last decade that SMEs far outperformed large enterprises in employment generation in Nigeria (Ajuwon et al., 2017). Birch (1979) claimed that SMEs are the most important agents of employment generation in any economy. Interest in these business units has increased as the world has come to realize their importance not only in employment generation but also in an increase in output, and as a source of export (IFC, 2013).

The Central Bank of Nigeria noted that SMEs make very important contributions to the economy in the areas of employment generation, utilization of local resources, and output expansion. They also contribute to the transformation of traditional/local technology, production of intermediate goods, advancement of even development, income redistribution, in addition to increasing government revenue base through taxation (Uchenwamgbe, 2013). In developing countries, SMEs contribute to economic growth and social upliftment because they are usually owned and operated by locals and

residents and use local resources and familiar technology, unlike large firms that are often multinational corporations using advanced technology (Uchenwamgbe, 2013).

Notwithstanding the important role played in the economy by SMEs, most of the enterprises do not survive up to their fifth anniversary. Recent research from South Africa indicated that 80% of that country's small businesses fail within 5 years of commencing business (Strydom, 2015). The same is true of Nigeria where the National Bureau of Statistics said that 80% of SMEs fail before their fifth anniversary (NBS, 2013). This type of attrition has dire consequences for the business and economic life of Nigeria. Researchers have attributed the situation to both environmental and internal factors. Akuru and Okoro (2014), for example, reported that among environmental factors inhibiting the development of SMEs in Nigeria are gross undercapitalization, decrepit infrastructural services, high start-up costs, corruption, and government indifference. In the case of an epileptic and unpredictable electric power supply, for example, the cost of providing alternative power is about three times the cost of publicly supplied power (Akuru & Okoro, 2014). According to the scholars (Akuru & Okoro, 2014; Okpara, 2011), power outages have a connection with the recent trend of big companies closing and relocating from Nigeria. Internal factors manifest in poor leadership practices and incompetent management (Onugu, 2005). This study focused on internal factors responsible for the survival of SMEs.

Obiwuru, Okwu, Akpa, and Nwankwere (2011) suggested that inappropriate leadership style is one of the reasons for the high failure rate of Nigerian SMEs. In a study of the effects of leadership style on organizational performance of SMEs in Ikosi-

Ketu council area of Lagos State in Nigeria, the scholars found that transactional leadership style was more appropriate than transformational leadership style for inducing performance in small-scale enterprises. Later studies (e.g., Adanri, 2016; Ejerem & Abasilim, 2014; Uchenwamgbe, 2013) produced quite different results and found that transformational leadership style was more significantly correlated with organizational performance than transactional and laissez-faire leadership styles.

Obiwuru et al. (2011) stated that organizational performance is the ability of an enterprise to achieve objectives that include having a competitive edge in terms of profit, product quality, market share, financial returns, and survival at any given time, all because of successful application of good policies and strategies. The stated objectives do not include innovation, though Obiwuru et al. acknowledged that SMEs are engaged in contemporary markets marked by intensive competition in innovative products, price wars, declining margins and, the creative destruction of existing competencies (Christensen, 2015; Schumpeter, 1943). Innovation is a matter of life and death for the modern firm (Cefis & Marsili, 2005). Innovative firms will survive and prosper, and innovation is critical for the survival of SMEs. Leadership style is a proven determinant of innovativeness in small businesses (Dunne, Aaron, McDowell, Urban, & Geho, 2016).

Research should go deeper in its examination of the relationship between leadership style and organizational performance, as well as the relationship between leadership style and innovation performance. Innovation performance refers to the contribution of product and process innovations to organizational performance (Tajasom, Hung, Nibkin, & Hyung, 2015). Understanding how to assemble enterprise capabilities to

enhance innovation performance is critical for SME growth and survival (Whittaker, Fath, & Fiedler, 2016). Leadership can enhance the assembling of enterprise capabilities. While much has been studied about the relationship between leadership styles and organizational performance within Nigerian SMEs, little is known about the relationship between leadership styles and innovation performance (Bello, 2017). In this study, the focus was to address this gap in knowledge.

Problem Statement

One factor responsible for the high failure rate of Nigerian SMEs could be inability to innovate due to adoption of inappropriate leadership style (Obiwuru et al., 2011). The general problem is that there is low innovation performance within Nigerian enterprises. According to the National Bureau of Statistics, SMEs are responsible for 84% of all jobs and 48% of GDP, but most of the enterprises do not survive up to their fifth anniversary (NBS, 2013). Due to the strategic position that SMEs occupy in the economy, such a high failure rate has dire consequences. Some researchers that sought to determine how leadership style impacts organizational performance in Nigeria produced different results. Adanri (2016), for example, demonstrated that transformational leadership style influenced the attainment of organizational outcomes. In an earlier study, Ejerem and Abasilim (2014) concluded that a combination of transformational and transactional leadership styles would yield the same result.

Before the two studies (i.e. Adanri, 2016; Ejerem & Abasilim, 2014), Obiwuru et al. (2011) concluded that transactional leadership style produced better organizational performance in small-scale enterprises. Given today's dynamic, intensive, and

innovation-based competitive environment in which SMEs must innovate to survive, research needs to go beyond examining the effect of leadership style on organizational performance and go deeper into examining its effect on innovation performance. Innovation performance refers to the contribution of product and process innovations to organizational performance (Tajasom et al., 2015). The need for such understanding, which is presently lacking, becomes clearer when viewed against evidence from the 2015 Global Innovation Index which indicates that there is an innovation deficiency within Nigerian enterprises. On the index, Nigeria as a country scored 20 out of a possible 100 points in innovation inputs and outputs (Cornell University, INSEAD & WIPO, 2015). Given that leaders must understand how to assemble enterprise capabilities to enhance innovation performance (Whittaker, et al. 2016), the specific problem is that the influence of leadership style on innovation performance within SMEs in Nigeria is not clearly understood (Bello, 2017).

Purpose of the Study

The purpose of this quantitative correlational survey study was to examine the relationship between leadership styles and innovation performance within SMEs in Nigeria. Leadership styles examined are transformational, transactional, and laissez-faire/passive-avoidant, all of which constitute the full range leadership model (Avolio & Bass, 1991). Transformational leadership style is generally defined as behavior that elevates and broadens followers' goals and motivates them to perform beyond the expectations specified in implicit or explicit exchange agreements, and involves a leader developing a positive relationship with followers (Avolio & Bass, 1991; Bass & Avolio,

1994, 2004; McCleskey, 2014; Sosik & Jung, 2010). Transactional leadership style is generally defined as behavior that focuses on the exchange of resources and fulfilling of terms specified in implicit or explicit exchange agreements between leader and follower (Avolio & Bass, 1991; Bass & Avolio, 1994, 2004; McCleskey, 2014; Sosik & Jung, 2010). Laissez-faire/passive-avoidant leadership style is generally defined as behavior that avoids taking decisions and is absent when leadership is needed (Adanri, 2016; Avolio & Bass, 1991; Bass & Avolio, 1994, 2004; Judge & Piccolo, 2004; McCleskey, 2014). Typically, it is a leadership behavior that acts, gives feedback, and initiates transaction with colleagues only when it cannot be avoided (Chaimongkonrojna & Steane, 2015).

In the second part of the study I asked respondents to identify innovation performance within their organizations. Innovation performance is the rate at which the enterprise introduces new products, process systems, or devices to satisfy existing and emergent customers (Tajasom et al., 2015). Innovation performance is an essential source of a firm's competitive advantage and was defined as the contribution of product and process innovations to a firm's performance (Chang, 2003; Caloghirou, Kastelli, & Tsakanikas, 2004; Tajasom et al., 2015). March's (1991) theory of organizational learning states that to survive organizations must explore unknown probabilities and exploit existing certainties. March (1991) defined exploration and exploitation as two forms of organizational learning. Exploration and exploitation learning activities are of crucial importance for innovation (Rosing, Frese, & Bausch, 2011), and innovation performance involves both explorative and exploitative innovation (Kraft & Bausch,

2016). Slater, Mohr and Sengupta (2014) stated that two critical learning styles that impact the development of innovations are exploratory market learning and exploitative market learning. Exploratory market learning leads to the development of unique products/services, while exploitative market learning leads to, and enhances, cost-effectiveness (Slater et al. 2014). There is more likelihood of exploratory market learning being associated with radical innovation just as exploitative market learning is more likely to be associated with incremental innovation. Respondents were required to identify both types of innovation within their organizations.

The independent variables are transformational, transactional, and laissez-faire/passive-avoidant leadership styles. The dependent variable is innovation performance.

Research Question and Hypotheses

The purpose of the quantitative correlational survey study was to examine the relationship between the independent variables: transformational, transactional, and laissez-faire/passive-avoidant leadership styles and the dependent variable, innovation performance of SMEs in Nigeria. The following research question and hypotheses are relevant:

RQ: How do transformational, transactional, and laissez-faire/passive-avoidant leadership styles, as measured by the Multifactor Leadership Questionnaire (MLQ-Form 5X), relate to innovation performance, as measured by an eight-item scale developed by Meeus and Oerlemans (2000), of SMEs in Nigeria?

$H_0$1**:** There is no statistically significant relationship among transformational, transactional, and laissez-faire leadership styles, as measured by the MLQ-Form 5X and innovation performance, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

H_a1: There is a statistically significant relationship among transformational, transactional, and laissez-faire leadership styles, as measured by the MLQ-Form 5X and innovation performance, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

$H_0$2: Leadership styles of the FRLT (Transformational, transactional, and laissez-faire/passive-avoidant) do not statistically significantly predict innovation performance in small-to-medium-scale enterprises.

H_a2: Leadership styles of the FRLT (Transformational, transactional, and laissez-faire/passive-avoidant) statistically significantly predict innovation performance in small-to-medium-scale enterprises.

Theoretical Foundation

The theoretical base of this study, which is explained in more detail in Chapter 2, is the full range leadership theory (Avolio & Bass, 1991). The theory denotes three types of leadership behavior, namely, transformational, transactional, and nontransactional laissez-faire. Several leadership styles have been discussed in the literature, but a considerable portion of the research focuses on the full range leadership theory (Ryan & Tipu, 2013). This typology is more relevant to this study because recent research has shown that transformational, transactional, and laissez-faire/passive-avoidant leadership

styles, in various contexts, stimulate innovation in SMEs (Kraft & Bausch, 2016; Ryan & Tipu, 2013; Tajasom et al., 2015). In full range leadership theory (FRLT), nine factors characterize the three leadership behaviors. Five factors: idealized influence (attributional), idealized influence (behavioral), inspirational motivation, intellectual stimulation, and individualized consideration represent transformational leadership. Contingent reward, management-by-exception (active), and management-by-exception (passive) represent transactional leadership, and then there is laissez-faire.

The Multi-Factor Leadership Questionnaire (MLQ-Form 5X) is a 45-item instrument created by Bass and Avolio (1995) to measure the nine factors constituting transformational, transactional, and laissez-faire leadership styles of the full range leadership model. Researchers percieve the MLQ-Form5X as a reliable scale for effectively identifying leadership tendencies based on responses from research participants. The validity of the MLQ was recurringly questioned in prior research studies. According to Avolio, Bass & Jung (1999), some of the concerns raised by researchers related to whether transformational leadership traits can be identified independent of the contingent reward component of transactional leadership. A second recurring concern in prior studies is the difficulty on the part of researchers to empirically distinguish transformational leadership qualities (Ferguson, 2014).

In addressing these concerns Avolio et al. (1999) subjected the MLQ to several revisions in a bid to improve the instrument in line with the concerns expressed by its users. Avolio et al. however attributed a large portion of the negative reports on the use of the MLQ in prior research studies to operator error stemming from the analysis

conducted, inadequate sampling techniques, or improper scale construction. The result of the several revisions of the MLQ is the MLQ-Form5X the validity and reliability of which were comprehensively assessed and demonstrated by Antonakis, Avolio & Sivasubramaniam (2003). Antonakis et al. (2003) concluded that the MLQ-Form5X can be used to represent the full-range model of leadership and its underlying theory. Based on this conclusion the MLQ-Form 5X was used in the present study to measure the nine factors of the leadership styles that comprise the full-range leadership model which are the independent variables in this research.

Another theoretical base of this study, which is also explained in more detail in Chapter 2, is March's (1991) theory of organizational learning. The theory states that business organizations must engage in exploratory and exploitative activity to survive. March had defined exploration and exploitation as two forms of organizational learning. According to Rosing et al. (2011) exploration connotes activities that lead to increasing variance, experimentation, search for alternatives, and risk taking; exploitation, on the other hand, is connected to activities that reduce variance, ensure adherence to rules, alignment, and risk avoidance. Engaging in both types of activities can lead to innovation performance, and leadership style is critical in ensuring exploratory and exploitative innovation activity (Kraft & Bausch, 2016). In this study, innovation performance will be measured by an eight-item scale developed by Meeus and Oerlemans (2000). Tajasom et al. (2015) tested and confirmed the reliability and validity of the eight-item scale.

Nature of the Study

The nature of the study was quantitative, and within the quantitative approach it was a correlational, cross-sectional survey. The quantitative design is a deductive approach that uses numerical data collected through structured and validated instruments to test theory and hypotheses and to examine statistical relationships between variables (Mertens, 2014). It entails the examination of relationships between variables for testing hypotheses and answering research questions. The quantitative, correlational design of this study examined whether, and to what extent, there is a statistically significant relationship between the nine components of the full range leadership model that comprise transformational, transactional, and laissez-faire/passive-avoidant leadership styles, as independent variables, and innovation performance as the dependent variable.

A form of descriptive quantitative research, correlational design involves investigating into if and to what extent a relationship exists between multiple variables (Creswell, 2014). Descriptive research is a process of gathering data within a contextual framework (Straits & Singleton, 2011), and though not reliable for determining cause-and-effect relationships it allows researchers to accurately describe problems, situations, or groups (Frankfort-Nachmias, Nachmias, & DeWaard, 2015).

Correlational design allows researchers to carry out studies in natural and real-life settings unlike experimental design which enables researchers to control the extrinsic and intrinsic variables that affect test results (Frankfort-Nachmias et al., 2015). The ability to control the introduction of the independent variable, for instance, helps the researcher to determine the direction of causation and strengthens the internal validity of the study but

researchers are often unable to replicate real-life social situations under experimental designs hence the designs are weak in external validity. Correlational studies are strong in external validity (Frankfort-Nachmias et al., 2015) and are useful for studies involving real-life scenarios rather than controlled environments.

A disadvantage of correlational design is that the lack of adequate control over rival explanations makes it difficult for researchers to make unambigous inferences (Frankfort-Nachmias et al., 2015). As Creswell (2014) noted, though correlational designs do not carry with them the problems associated with classic experimental designs, especially in relation to assessing experimental and control groups, a significant problem with correlational designs is the inability of researchers to specifically articulate why changes occur, and this is due to the lack of randomisation in the selection and placement of research participants. In experimental designs for instance, as a form of control, researchers randomly assign participants to groups. Thus when one group receives a treatment and the other does not, the researcher can isolate whether it is the treatment and not other factors that influence the outcome (Creswell, 2014). Such a precise articulation of cause-and-effect is difficult to produce under correlational, cross-sectional designs.

The quantitative correlational design aside, qualitative designs such as case study, phenomenology, and grounded theory were evaluated before making a choice of design for the study. The qualitative approach, unlike the quantitative, is based on a constructivist, interpretivist philosophical approach which holds that social phenomena is best understood through an examination of the meaning that individuals and groups

ascribe to social reality (Saunders, 2009). The qualitative approach's strategies for inquiry, data collection, data analysis and interpretation differ from quantitative methods. For example, while the quantitative researcher uses instruments developed by others or by the researcher to obtain data, the qualitative researcher is often the instrument and is immersed in the research to be able to extract meanings and interpretations of phenomena as viewed by research participants (Rubin & Rubin, 2005). The aim of phenomenological design is to analyze and understand the meaning assigned by individuals and groups to social phenomena encountered in the course of day-to-day living (Frankfort-Nachmias et al., 2015). Case study research, on the other hand, provides rich and exhaustive accounts of an entire social process, in a single research setting (Frankfort-Nachmias et al., 2015). In grounded theory researchers attempt, based on analytic induction, to construct (versus test) a set of theoretical propositions based on their experiences in the field (Frankfort-Nachmias et al., 2015).

After consideration of other methodologies, the justification for the choice of quantitative, correlational design in the present study is that the purpose of the study was to examine the statistical relationships between independent and dependent variables. The study collected data from leaders who are responsible for steering the activities of their SMEs towards realizing commonly accepted visions and agreed goals, using the MLQ-Form5X for independent variables, and another instrument, an eight-item scale proposed by Meeus and Oerlemans (2000), for the dependent variable. The sample size, obtained by G*Power 3.1.9.2 estimates, is 77 SMEs (see Figure 1). However, this figure was increased by 25% to address non-response, account for possible sample error and to

ensure normal distribution of the data (Adanri, 2016). A sample size of 97 was used for the study. Two participants were selected from each sample enterprise giving a total of 194 participants. Bivariate statistics, the *Pearson correlation*, was used to ascertain the association between the variables whereas multiple linear regression analysis was used to examine the strength and predictability of the association. The research, as a correlational, cross-sectional survey seeking to describe relationships between variables was not intended to establish causality (Frankfort-Nachmias et al., 2015).

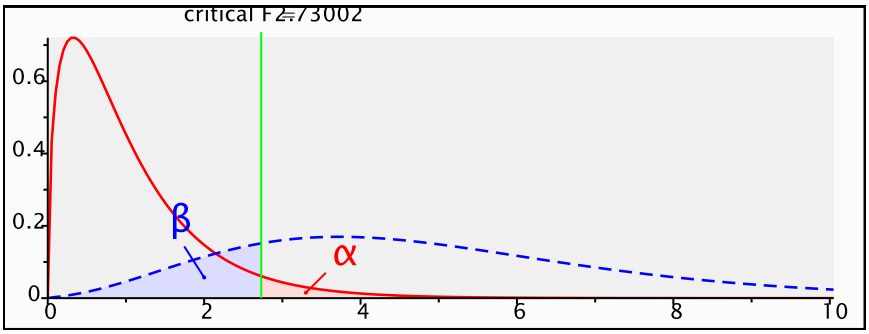

Figure 1. F tests – Linear multiple regression: Fixed model, R^2 deviation from zero using G*Power 3.1.9.2 to calculate required sample size given effect size, alpha, and power. Source: Faul, Erdfelder, Buchner and Lang (2009).

Definitions

GDP: Gross Domestic Product. As defined by Worldwide Governance Indicators (2013), GDP is the gross value of all goods and services produced in a country, including taxes levied but excluding subsidies enjoyed in producing the goods and services.

IFC: International Finance Corporation. IFC (2017) revealed itself as part of the World Bank emphasizing development for the most part. It is part of the private sector "in emerging markets" (p. 2). Its headquarters are in Washington DC.

Innovation: The multistage process by which organizations convert ideas into new products, services or processes which aid them (the organizations) to advance, compete, and differentiate themselves successfully in the marketplace (Kesting, Uhloi, Song & Niu, 2015)

Innovation performance: A measurement of introduction of new products, services or processes in relation to predetermined organizational goals (Saunila, 2017). It is a measure of the contibution of new products, processes or services to organizational performance (Tajasom et al., 2015).

Laissez-faire/passive-avoidant leadership style: Leadership that is absent when needed, avoids taking decisions, abdicates responsibility, and intervenes only when standards are not met (Adanri, 2016; Chaimongkonrojna & Steane, 2015)

Leadership: In leadership, the social influence of an individual inspires others to reach their objectives (Chemers, 2015).

NBS: National Bureau of Statistics.The NBS is described in its webpage http://nigerianstat.gov.ng/page/about-us, as the institution empowered by Nigerian law to coordinate the statistical operations of the National Statistical System in the production of official statistics for all governments in the Federal Republic of Nigeria.

SME: Small-to-medium-scale enterprise with fewer than 200 employees and an annual sales turnover of less than N200 million (SMEDAN, 2013).

SMEDAN: Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2013).

Transactional leadership style: Leadership behavior that focuses on the exchange of resources and fulfilling of terms specified in implicit or explicit exchange agreements between leader and follower (Bass, 1985, 1998). Its basic approach is a clear communication of work tasks and rewards and punishments focusing on the basic needs and desires of followers (Jing & Avery, 2016; Kesting et al., 2015).

Transformational leadership style: Leadership behavior that elevates and broadens followers' goals and motivates them to perform beyond the expectations specified in implicit or explicit exchange agreements (Bass, 1985, 1998). Such leaders employ a collaborative style for making decisions and sharing problems with followers as well as seeking consensus before making a final decision (Jing & Avery, 2016).

Assumptions

I made specific assumptions which aided the definition of the framework of this study. Vogt and Johnson (2011) defined an assumption as "a statement that is presumed to be true, often only temporarily or for a specific purpose, such as building a theory" (p.16). In this study, the assumptions made are necessary for the study to be done because the assumptions govern the overall procedure adopted for the study. The following assumptions guided the conduct of the study:

1. The methodology used was appropriate.
2. The population was assumed to be a good representation of SMEs in Nigeria.
3. The sample drawn was a good representation of the population.

4. The participants answered the online questionnaire truthfully and to the best of their knowledge.
5. The participants understood the importance of not disclosing information from this study.
6. The questions of the online questionnaire did not lead the participants toward bias in answering in a purposely intended manner.
7. Every response from the participants was taken into account.
8. The participants are leaders (owner-managers, top management team and managers) who are responsible for steering the activities of their SMEs towards realizing commonly accepted visions and agreed goals.
9. Leaders of SMEs operate within disparate organizational cultures.
10. Leaders of SMEs have similar levels of knowledge of topic to be examined but do not necessarily share the same perspectives.

Scope and Delimitations

Under the scope of this study, I considered leaders of SMEs through a random sampling approach. Participants are the leaders who are responsible for steering the activities of their SMEs towards realizing commonly accepted visions and agreed goals of the enterprises. The data collected by means of online questionnaires pertained to the leadership behaviors of the participants and the innovation inputs and outputs of their enterprises. This data was interpreted using quantitative data analytical tools.

The study's boundaries are the population of leaders of SMEs from the Lagos area of Nigeria and from manufacturing, and information and communication technology

sectors. Additional boundaries are the restriction of the independent variables to the three leadership styles that constitute the full range leadership theory (FRLT). Similarly, innovation performance, the dependent variable, was restricted to new products, process systems, or devices. It excluded administrative or management innovation.

Limitations

In this study, I focused on leaders of SMEs in a country, which limited the applicability of the findings in other countries that do not share the same characteristics as the country in focus. The quantitative survey methodology was used, and the survey instrument, due to the relatively high number of items on it, may have left the participants with the impression that there was insufficient time to complete surveys, however, participants were given ample time to respond and were notified of this in advance. The survey questions were predetermined and as such might not have allowed participants to expand the range of their responses. Also, participants chose whether to respond or not. I might not have received all the questionnaires needed to answer the research question. To address this challenge I increased the number of participants beyond the statistically derived optimum.

Significance of the Study

A study of the relationship between leadership style and innovation performance in SMEs in Nigeria is important for several reasons. First, it would contribute to the discussion about the relationship between leadership styles and organizational outcomes in Nigerian enterprises by examining the topic from the perspective of innovation performance within SMEs. Second, the study provided an understanding of the role of

leadership style in promoting innovation within small businesses in Nigeria and contributed to existing knowledge about leadership and sustainable development in Nigeria (Agbiji & Swart, 2015). Third, the professional practice of small business management would benefit from the study as the results created an awareness of the relationship between leadership styles and innovation performance in SMEs. Leaders of such businesses could be trained and aided to be conscious of this relationship and to leverage the knowledge to stimulate innovation in their firms. The findings of the study contributed to positive social change by providing an understanding of leadership styles and their influence on innovation within small businesses in Nigeria. Such findings might make the enterprises respond accordingly and be more competitive, survive, grow, create jobs, and prosper.

Significance to Theory

This study helped fill the gap in the literature about the relationship between leadership style and organizational performance in SMEs in Nigeria. It did this by examining the topic with a focus on innovation performance as a specific component of organizational performance, thus enhancing the current literature that focused on organizational performance in general. The depth of analysis revealed the relative importance of innovation performance as a fulcrum of effective organizational performance. The study created awareness of how existing theories apply to the leadership of SMEs in Nigeria in their effort to ensure the survival of their firms through innovation. The study might have also stimulated interest among management scholars in examining the relationship between leadership style and each of the other components of

organizational performance as single topics in their own right. The study might also have elicited inquiry as to whether the full range leadership theory (FRLT), which was developed in a Western cultural context, is fully or partially applicable in a developing country in Africa.

Significance to Practice

This study might have improved the contribution of SMEs to economic growth and development, the practice of small business management, and to positive social change in three ways:

1. The attention of leaders of small businesses might have been redirected to the importance of innovation for the survival of their enterprises. Emphasis on short-term financial performance is detrimental to the long-term health of the firm whereas innovation performance, even if the results tarry in coming, will guarantee long term survival. Since the results of this study indicated the leadership style(s) that are significantly related to innovation within SMEs, practitioners are encouraged to incorporate training on such leadership behaviors in leadership development programs. By so doing, practitioners might end up introducing a culture of leadership for innovation in the small business sector of the economy.
2. The practice of small business management is the ultimate beneficiary because it becomes exposed to knowledge about leadership styles and their impact on innovation performance of SMEs. This knowledge adds to the

repertoire of skills of practitioners as well as the knowledge base of the industry.

3. Providers of credit to small businesses might have received an additional line of comfort knowing that with improved innovation performance their clients will likely outlive the current general life span of similar enterprises, 5 years after opening for business, which might open up opportunities for higher credit availability consequent upon reduced risk profile for SMEs.

Significance to Social Change

In Nigeria, SMEs generate 84% of total employment and contribute 48% of GDP (NBS, 2013), underscoring their importance to economic growth and development.This study, by focusing on that segment of the economy, contributed to positive social change by highlighting leadership style(s) that stimulates innovation to enable the enterprises in the sector to survive, grow, and compete effectively in the modern economy. Details of the contribution to positive social change were considered under the following three factors:

1. More jobs might be created if the enterprises survived and grew and attendant socio-economic benefits such as income redistribution, youth engagement, crime reduction, a satisfied polity, and happy families, would flow from it.
2. Society will benefit because more resources will become available for solving social problems. This is because the productive economic base of society will be expanded as SMEs become more innovative by virtue of adopting effective

leadership styles. In a society like Nigeria, where the extended family system is cultural, more jobs will help provide improved social security.

3. Individuals may benefit from improved job security, which in turn will engender enhanced loyalty and trust in management from employees. In having job security, improved skill acquisition can result and a rise in productivity may be witnessed. Overall, sustainable economic development, which is sorely needed in Nigeria (Agbiji & Swart, 2015), may become obtainable.

Summary and Transition

In this chapter, I provided an introduction to the study of the relationship between leadership style and innovation performance in SMEs in Nigeria. Following the introduction was a discussion of the background of the study, the problem statement, and purpose of the study. Next was the research question and hypotheses; the theoretical foundation; the assumptions, limitations, scope and delimitations; and the significance of the study. In Chapter 2, I provide a review of current and related literature, and in Chapter 3, I discuss the proposed research method. In Chapter 4, I present the results of the study and, in Chapter 5 discussions, conclusions, and recommendations.

Chapter 2: Literature Review

Introduction

The purpose of this quantitative correlational survey study was to ascertain if a statistically significant relationship exists between transformational, transactional, and laissez-faire leadership styles and innovation performance within 97 SMEs located in Nigeria. The study provided insight into the role of innovation in the survival and competitiveness of SMEs and the effect of leadership style in stimulating innovation. Obiwuru et al. (2011) had identified inadequate leadership style leading to lack of innovation as a factor that hinders effective organizational performance and hence survival of small-to-medium enterprises in Nigeria.

This literature review provides an overview of the development of leadership studies, leadership theories, and leadership practices and styles. It also provides an overview of organizational learning theories in relation to innovation and change, and the nature and structure of SMEs in Nigeria and the role of leaders in ensuring their competitiveness and ultimate survival.

Finally, this literature review gives an overview of the state of research methods used to conduct this survey and their appropriateness for the task at hand.

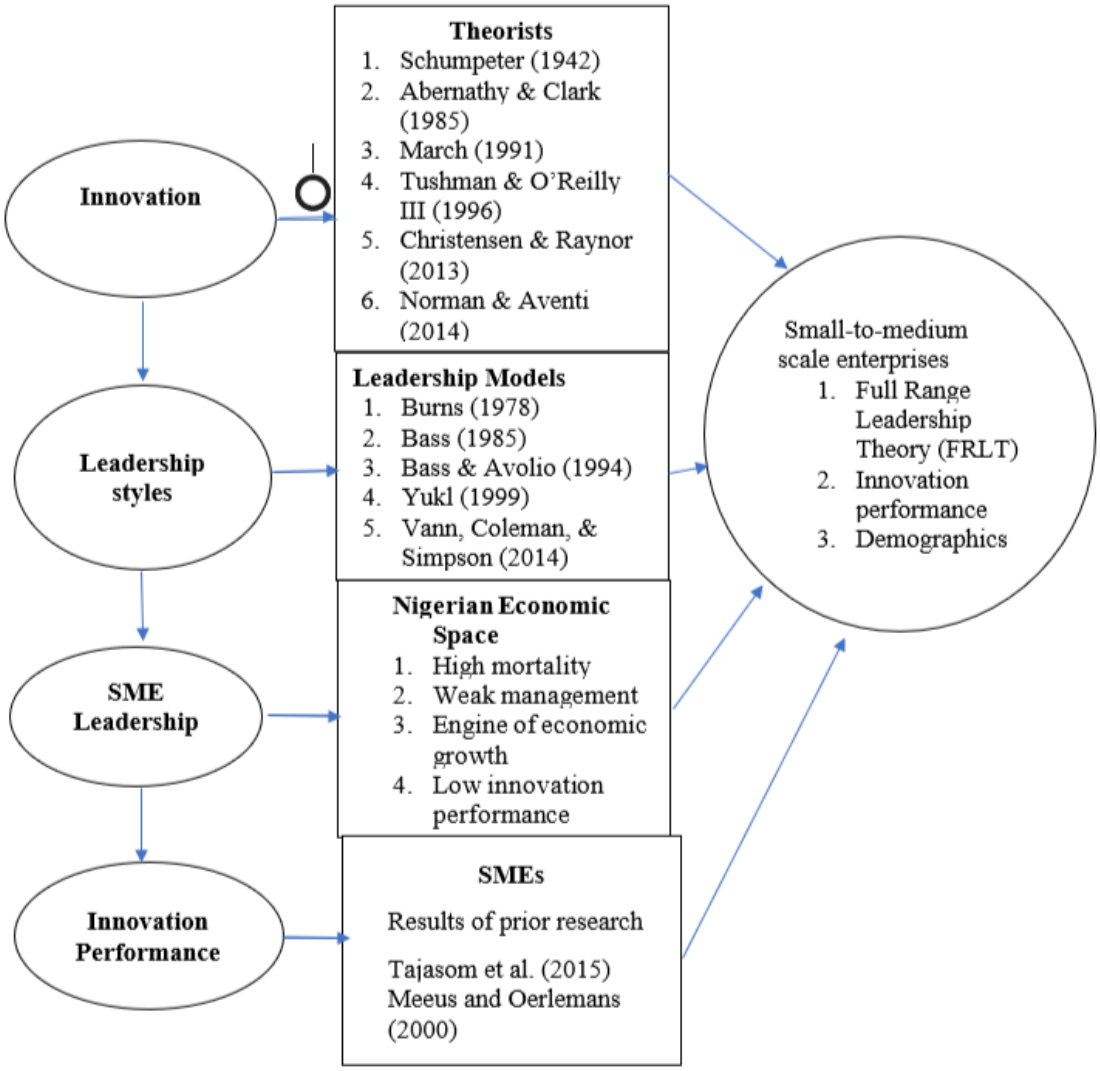

Figure 2. Graphical representation of the interrelationships of paradigms and theories that informed the literature review.

Source: Adapted from Ferguson (2014).

Literature Search Strategy

The strategy for the literature review included information from diverse sources in the literature that could assist in achieving the objectives of the study by answering the research question and examining stated hypotheses. Works cited in this literature review came from multiple sources, among which are articles in peer-reviewed journals, published books, academic studies, government publications, Central Bank of Nigeria reports, Nigerian Bureau of Statistics reports, World Bank reports, Economic Community of West African States (ECOWAS) reports, African Development Bank (ADB) reports, African Union (AU) reports, European Union (EU) reports, and other sources of primary data including the World Wide Web. The databases for searching these sources were ABI/Inform, Academic Search Complete, Business Source Complete, Directory of Open Access Journals, Dissertations and Theses @ Walden University, Emerald, ProQuest, Psych INFO, Research Gate, Sage, Science Direct, Springer Link, World Bank Open Knowledge Repository.

The keywords used to search the databases are *leader, leadership, leadership style, transformational leadership, transactional leadership, laissez-faire leadership, Full Range Leadership Model, SME, small business, Nigeria, organizational performance, organizational learning, innovation, radical innovation, incremental innovation, ambidexterity, innovation performance,* and *change.* A combination of any of these words, for example, *leadership and organizational performance, leadership style and innovation in small business, organizational learning and leadership in SMEs, leadership style and organizational performance in Nigerian SMEs*, yielded abundant search results.

This literature review presents the evidence base to justify the study and explained the relevance of research on the relationship between leadership style and innovation performance of SMEs. Included are scholarly resources to highlight the perspectives of different scholars and leading authorities on topics of leadership, the full-range leadership theory, organizational learning and innovation management, small business management, survey research methodology, and the Nigerian economic landscape. The review is arranged according to critical subject areas to compare the views of various scholars on the topics relevant to the study.

Theoretical Foundation

In this section, I evaluate the current state of research on the theoretical framework, which allowed framing of the problem identified earlier in such a way that it can be studied scientifically. The theoretical framework of this study is the full range leadership theory (FRLT) proposed by Avolio and Bass (1991). The constructs of this theory denote three types of leadership behaviors namely, transformational, transactional, and laissez-faire leadership styles, all represented by nine distinct factors (Antonakis et al., 2003). Five out of the nine factors represent transformational leadership viz, idealized influence (attributional), idealized influence (behavioral), inspirational motivation, intellectual stimulation, and individualized consideration. Three factors represent transactional leadership viz, contingent reward, management-by-exception active, and management-by-exception passive. One factor represents nontransactional laissez-faire viz, laissez-faire. The factor structure of the FRLT has generated criticism with some researchers offering recommendations for a rearrangement of the components. As Vann,

Coleman, and Simpson (2014) noted the criticism centered on the discrimination between management-by-exception (passive) and laissez-faire leadership, and they argued that there is little discriminant validity between the two. Bass and Avolio (2004) accepted the criticism and rearranged the components accordingly such that transactional leadership now has two components: contingent reward and management-by-exception active. Laissez-faire leadership now has two components: management-by-exception passive and laissez-faire. Meanwhile, transformational leadership has remained unchanged. With this rearrangement the laissez-faire factor now became known as the passive-avoidant leadership style (Vann et al., 2014). This factor structure was adopted in the present study.

The FRLT is one of the neo-charismatic theories and is a further development of Bass's (1985) theory of transformational leadership (Dinh et al. 2014). The theory arose from Bass's argument that existing theories of leadership were focused primarily on leader-follower exchanges of goal and role clarification and how leaders rewarded or sanctioned behavior of followers (Antonakis et al., 2003). This type of leadership behavior was transactional and was limited to bringing about only basic exchanges with followers (Bass, 1985). Bass (1985) argued that a change of mindset was required to understand how leaders influence followers to transcend their self-interest in favor of the greater interest of their units or organization to achieve performance beyond expectations. Following Burns (1978), Bass called such a leadership style transformational leadership. Originally, Bass's theory comprised six factors, four of which represented transformational leadership while two represented transactional leadership. After further

research over a 5-year period, Bass and his colleagues further expanded the theory to its current form, now called the full-range leadership theory (FRLT), comprising the nine factors listed earlier (Bass & Avolio, 1997).

The survey instrument for assessing the nine factors of FRLT is the multifactor leadership Questionnaire (MLQ), and the most current form of it is the MLQ-Form5X. The factor structure of this model has of recent come under scrutiny. Antonakis and House (2014), for example, identified theoretical inconsistencies in the theory and found evidence of a four-factor model that added instrumental leadership to the original three: transformational, transactional, and laissez-faire.

The full-range leadership theory (FRLT) was applied by several scholars in studies of the relationship between leadership and organizational performance in Nigerian enterprises. For example, Obiwuru et al. (2011) studied the effects of leadership styles on organizational performance of small-scale enterprises in Ikosi-Ketu Council of Lagos State of Nigeria. This study involved a survey in which the scholars tested the effect of transformational and transactional leadership styles on organizational performance of small-scale enterprises. The leadership styles were measured using the Multi-Factor Leadership Questionnaire (MLQ-Form 5X). Ejerem and Abasilim (2014) studied the impact of transactional and transformational leadership styles on organizational performance in a state-owned enterprise in Nigeria. The theoretical foundation of the study was the FRLT and the two leadership styles were examined using the MLQ.

Adanri (2016) studied the relationship between Nigerian local government administrative leadership styles and organizational outcomes. The independent variables

in the study are the three leadership styles of the FRLT, and they were measured using the MLQ. Another similar study is Tajasom et al. (2015), which examined the role of transformational leadership in innovation performance of Malaysian SMEs. The present study is like the previously described studies because they were based on the same theoretical foundation, the FRLT. The dependent variable of this study differs from the earlier Nigerian studies because its focus is on innovation performance and not on organizational performance. It is, however, like Obiwuru et al.'s study, focused on small scale enterprises (SMEs).

The rationale for the choice of the FRLT is that although several theories of leadership have been discussed in literature, a considerable portion of leadership research has focused on this theory. The theory and the instrument for measuring it, the MLQ, have been thoroughly tested for validity and reliability (Antonakis et al., 2003). Because the theory was successfully applied in research similar to the present one, the choice of the full-range leadership theory for this study is justified. Worthy of note is Ryan and Tipu's (2013) study in Pakistan, which tested the relationship between the FRLT model and propensity for innovation among Pakistani businesses and failed to support the three-factor structure. The scholars argued for a simpler two-factor model of leadership comprising active leadership and passive-avoidant leadership. Active leadership is a combination of transformational and transactional leadership styles, and passive-avoidant leadership style is comprised of the management-by-exception (passive) and laissez-faire components.

The findings of Ryan and Tipu (2013) and other scholars (e.g. Iguisi, 2016) seem to confirm Avolio and Yammarino's (2013) caveat regarding the universality of the full range leadership model and which recognized the need to adjust the paradigm for application in nonwestern contexts. This confirmation underscored the need for a better understanding of the application of the model in such contexts. The present study adds to this understanding, for it confirms the application of the FRLT model in SMEs in Nigeria, a country like Pakistan in leadership models in many respects.

The second theoretical framework of this study is March's (1991) theory of organizational learning. According to this theory, to survive, an organization must learn to explore new opportunities while exploiting current realities. The exploration of new opportunities involves exploratory innovation while exploiting current realities implies exploitative innovation. March's theory has influenced research on organizational learning and strategy, innovation, and entrepreneurship, and has given wide coverage to the notion of exploration and exploitation (Jansen, van Den Bosch, & Volberda, 2006). In their study of strategic leadership for exploration and exploitation and the moderating role of environmental dynamism, Jansen, Vera, and Crossan (2009) examined the relationship between transformational and transactional leadership and exploratory and exploitative innovation. The scholars found that transformational leadership style tended to favour exploratory innovation in a situation of environmental dynamism, while transactional leadership style tended to stimulate exploitative innovation under the same circumstances.

Tajasom et al. (2015) examined the role of transformational leadership in innovation performance of Malaysian SMEs and concluded that transformational leadership style influenced innovation performance of small enterprises in Penang, Malaysia. Ryan and Tipu (2013) studied leadership effects on innovation propensity and proposed a two-factor model in comparison to the three-factor model of FRLT. The researchers sought to show that the FRLT, in relation to innovation propensity of firms, does not apply in full in a non-western context (i.e., Pakistan). These studies are similar to the present study in the sense that they examined the relationship between leadership style (FRLT) and innovation in organizations based on March's theory of organizational learning for innovation. Tajasom et al's study is of particular relevance to the present study because they used an eight-item instrument designed by Meeus and Oerleman (2000) to measure innovation performance. This instrument is quite suitable for SMEs because rather than rely on R&D spending, number of patents, patents citations, etc., which apply mostly to large firms, it measures innovation performance based on product and process innovation on the following parameters: the contribution of innovation to cost-cutting efforts, an increase of turnover, an increase of profits, and quality improvements (Ryan & Tipu, 2013).

The rationale for choosing March's (1991) theory is that it is widely studied and has formed the basis of several empirical studies on innovation management. This study relates the theory to leadership styles and innovation performance in SMEs in Nigeria. Innovation is change, and change is inevitable. In today's world of environmental dynamism, any organization unwilling to change dies (Cefis & Marsili, 2006). This study

also examined innovation, survival of SMEs in an innovation-driven competitive environment, and innovation performance as a component of organizational performance. Much research exists on the impact of leadership style on organizational performance of Nigerian enterprises, but none has examined its relationship to innovation performance.

Literature Review

Transformational Leadership

The neo-charismatic theories of leadership comprise mainly transformational, charismatic, and transactional leadership and are the most widely studied of leadership theories in the new millennium (Dinh et al., 2014). Of the three sub-categories, transformational leadership, has attracted the most attention (Dinh et al., 2014), and according to Avolio and Yammarino (2013), it is "the new leadership genre" (p. xxvii). Burns (1978) operationalized the theory of transformational leadership when he treated transformational leadership style as one end of a continuum, the other end being transactional leadership style. Burns defined a transformational leader as someone who uplifts the level of consciousness of followers from a focus on self to a focus on the importance and value of desired organizational outcomes, and the methods of reaching those outcomes. The transformational leader convinces followers to transcend their self-interest for the sake of the organization. Transformational leaders create a vision of the future for the organization, improve follower's self-confidence, help them realize their potential, communicate an achievable vision, identify their personal needs, work with them to satisfy those needs, and motivate them to achieve the collective vision of the organization (İşcan, Ersari, & Naktivok et al. 2014). Dumdum, Lowe, & Avolio (2002)

claimed that transformational leaders build trust, work towards making leaders of others, show self-sacrifice and serve as moral beacons, and by so doing, focus themselves and followers on objectives that go beyond the immediate interests of the work group. Transformational leadership style was contextualized as leadership that "heightens consciousness of collective interest among the organization's members and helps them achieve their collective goals" (Garcia-Morales, Jimenez-Barrionuevo, & Gutierrez-Gutierrez, 2012, p.1040).

Transformational Leadership Theory

Transformational leadership theory provides a perspective that aids understanding of how certain leaders bring followers to perform beyond expected standards through fostering an emotional attachment with the followers, and other leaders, all geared towards pursuing a common cause which adds to the greater good of the group (Avolio & Yammarino, 2013). Based on empirical evidence, Bass and his colleagues modified the transformational leadership construct enunciated by Burns and over time identified five dimensions of transformational leadership: idealized influence (attributional), idealized influence (behavioral), inspirational motivation, intellectual stimulation, and individualized consideration (Avolio et al. 1999; Bass & Avolio, 1994). Idealized influence (attributional) represents a situation whereby followers give the leader credit for qualities that they would like to emulate. Idealized influence (behavioral) occurs when a leader impresses his followers through his behaviors. Researchers frequently group both types of idealized influence as charisma.

Judge and Piccolo (2004) noted that charisma, or idealized influence, represents the extent to which a leader behaves in ways that followers admire, causing them to identify with the leader. Such leaders stand up for what is right, have convictions, and emotionally connect with those who follow them (Judge & Piccolo, 2004). Inspirational motivation is behavior by a leader that inspires and motivates followers by providing them with a shared meaning, and articulates a vision that is appealing to followers. Inspirational motivation behavior essentially arouses enthusiasm and optimism among followers (McCleskey, 2014). Intellectual stimulation represents the extent to which a leader gets followers to think critically, and hence question assumptions, reframe existing problems, apply new frameworks and perspectives to old and established situations and challenges, all geared towards increased innovation (Bass & Riggio, 2006; McCleskey, 2014). Such intellectual stimulation must be accompanied by openness on the part of the leader such that followers are allowed to operate unhindered by criticism thereby gaining increased levels of confidence in facing problem-solving situations. Individualized consideration is the degree to which a leader acts as coach or mentor to assist followers to reach their full potential. In this situation, leaders provide learning opportunities and a supporting climate (McCleskey, 2014). A combination of these five components makes a leader transformational.

Critique of Transformational Leadership Theory - Though theories of charismatic and transformational leadership differ from each other in some important respects, they both share a common core. Mumford, Antes, Caughron, & Friedrich, (2008) argued that they both hold that oustanding leadership is based on the effective articulation of a future-

oriented vision that motivates and directs others while providing a sense of meaning and effective engagement.

Not all researchers, however, share the enthusiasm of the supporters of charismatic-transformational leadership theories. Yukl (1999), for example, evaluated the conceptual weaknesses in charismatic and transformational leadership theories and concluded that notable ambiguities exist in the theories, especially those propounded by Bass (1985, 1996). First, Yukl highlighted ambiguities about underlying influence processes, saying that the theories do not explain clearly the processes by which a leader influences the attitudes, motivation, and behavior of subordinates. Second, there is an overemphasis on dyadic processes wherein the theories are mostly concerned with a leader's direct influence over individual followers with little attention being paid to leader influence on group or organizational processes. Group-level processes will include the following:

> (1) How well the work is organized to utilize personnel and resources; (2) how well inter-related group activities are coordinated; (3) the amount of member agreement about objectives and priorities; (4) mutual trust and cooperation among members; (5) the extent of member identification with the group; (6) member confidence in the capacity of the group to attain its objectives; (7) the procurement and efficient use of resources; and (8) external coordination with other parts of the organization and with outsiders. (Yukl, 1999, p. 287)

Third, there is ambiguity about transformational behaviors, as for example, the theoretical rationale for differentiating among the behaviors that constitute transformational

leadership is not clearly explained. Take, for instance, individualized consideration of which supporting and developing are a part. Both are distinct behaviors which have differing effects on followers. Supporting implies being friendly, helpful, considerate, and appreciative of individual subordinates. Developing which includes coaching and mentoring can be reasonably described as a core transformational behavior because it enhances subordinate's skills and self-efficacy. Supporting cannot fully be so described because, though research shows it increases satisfaction with the leader, it has only a weak effect on subordinate motivation and performance (Yukl, 1999).

In a general sense, charismatic/transformational leadership theories in focusing on emotional appeal of leaders, appear to ignore some key functions of leaders, for example, planning and decision making (Mumford et al., 2008; Yukl, 1999). For these and other reasons, charismatic/transformational leadership theories are said to exert stronger effects in bureaucratic organizations than in nonbureaucratic organizations (Lowe, Kroeck, & Sivasubramaniam, 1999; Obiwuru et al., 2011). SMEs are not usually bureaucratic organizations and it is of interest to the present study to examine whether charismatic/transformational leadership theories are effective in them.

In another criticism, vanKnippenberg and Sitkin (2013) faulted charismatic-transformational leadership theories on four grounds. First, conceptual: current perspectives of the theory offer multi-dimensional conceptualizations of charismatic-transformational leadership omitting to specify how the dimensions combine to form charismatic-transformational leadership, or the criteria for selection for inclusion or exclusion. Second, the theory as it currently stands fails to explain whether, and how,

each dimension distinctly influences intervening processes or outcomes, or whether, and how, all the dimensions operate through the same intervening processes and are contingent on the same moderating factors notwithstanding the fact that each dimension is distinct. Third, the theories confound the definition of leadership with its effects. Fourth, current measuremment tools (e.g. MLQ) fail to reproduce the multidimensional structure specified by theory. Moreover, they fail to produce results sufficiently distinct from those for other aspects of leadership not considered charismatic-transformational.

For these reasons,van Knippenberg and Sitkin (2013) advocated the abandonment of the charismatic-transformational theories of leadership in favor of more clearly defined and empirically distinct theories of leadership. Alatwi (2017) argued that the additive effect of the transformational leadership model is a myth. Alatwi concluded that transformational leadership does not produce a total effect equal to the sum of the effects of the four I's that constitute it, namely, idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Alatwi called for a new theory that gives more conceptual clarity.

While the search for a new theory continues, charismatic-transformational leadership theory remains the most researched of leadership theories and is explicitly or implicitly reputed as the theory that best explains effective leadership. Yukl (1999) claimed there is considerable evidence that transformational leadership is effective and enhances subordinate satisfaction and performance.

Transformational Leadership Style and Organizational Effectiveness and Performance

Yukl's (1999) criticism of Bass's (1985, 1996) theory of transformational leadership was, amongst other shortcomings, that the theory is too dyadic (i.e focused on leader-to-individual follower relationships) and does not specify leader-to-group or organizational relationships. This criticism recognizes the crucial role of leaderhip in engendering organizational effectiveness. As Jing and Avery (2016) emphasized, leadership is a potent source of management development and sustained competitive advantage for organizational performance improvement. This criticism (Yukl, 1999) seems, however, to have been addressed by recent studies. Gundersen, Hellesoy, and Raeder (2012) studied transformational leadership and leader effectiveness in international project teams facing dynamic work environments.

The research question included the relationship between transformational leadership and team performance, the mediating role of trust, the moderating role of dynamic work environment, the relationship between transformational leadership and work adjustment, and the relationship between transformational leadership and job satisfaction. Gunderson et al. (2012) argued that their study improves knowledge about the drivers of organizational effectiveness. The scholars concluded that by contributing to work adjustment and positive outcomes, transformational leadership style affects performance of teams on international assignments in a variety of complex projects. The results of the study confirm that transformational leadership theory applies to leader-group outcomes as to leader-individual follower outcome.

Another study that addressed the relationship between transformational leadership and organizational effectiveness was carried out in Malaysia by Hoxha (2015). Hoxha (2015) tested three hypotheses: (a) Transformational leadership style predicts positive organizational effectiveness, (b) psychological empowerment mediates the relationship between transformational leadership and organizational empowerment, and (c) organizational trust mediates the relationship between transformational leadership and organizational effectiveness. Hoxha stated that organizational effectiveness is the extent to which an organization achieves the outcomes that it desires to attain. Though outcomes vary, for most organizations, they prioritize product, financial performance, and organizational performance in general.

The results of the study indicated that all three hypotheses were supported. An important finding of the study was that psychological empowerment is more positively related to organizational effectiveness followed by organizational trust and then transformational leadership. However, transformational leadership well predicts organizational trust and psychological empowerment (Northouse, 2004) indicating a strong correlation among the three variables. In the same vein, three recent Nigerian studies also confirmed that transformational leadership is positively related to organizational performance.

Adanri (2016), for instance, studied local government councils in a state in Nigeria and found a significant correlation between leader effectiveness and transformational leadership style. Similarly, Ejerem and Abasilim (2014)

concluded that transformational leadership style enhanced organizational performance within a Nigerian state owned enterprise. Uchenwamgbe (2013) concluded that participatory leadership style enhanced employee performance in Nigerian SMEs. These studies appear to confirm the suggestion by Zhu, Chew, & Spangler (2005) that visionary/transformational leadership will result in high levels of cohesion, commitment, trust, motivation, and hence high performance in new organizational settings.

The studies described so far used as outcome variable organizational effectiveness or organizational performance. Organizational performace is a general term for an accumulation of criteria such as financial performance, market share, product quality, innovation performance, and competitiveness. In this study, I examined the relationship between leadership style and innovation performance as a criterion variable in its own right, thus isolating its unique contribution to organizational performance among SMEs. It is appropriate at this point to review the literature on the relationship between transformational leadership and innovation in organizations.

Transformational Leadership and Innovation

Innovation is defined as "the intentional introduction and application within a role, group or organization of ideas, processes, products, or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, group, organization, or wider society" (West & Farr, 1990, p. 9). Various fields of innovation, for example, technological innovation, service innovation, and management innovation

are found in the literature, but in this study the focus was on innovation performance at the level of the organization, and this concept encompasses all the fields of innovation. As a result, this study focused on organizational innovation.

The expectation that transformational leadership enhances employee creativity and innovation arises for several reasons. First, transformational leaders expect employees to think critically, question assumptions, reframe problems, and become high performers and leaders in their own right; and transformsational leadership style promotes innovation in organizations (Bass, 1985). This position was supported by Howell and Avolio (1993), who studied transformational leadership, transactional leadership, locus of control, and support for innovation, and empirically demonstrated that transformational leadership in contrast to transactional leadership and other leadership styles facilitates organizational innovation because it targets change and innovation. Second, over and above the exchange of contractual agreements for the desired level of performance, transformational leaders go to the extent of engaging with the personal value systems of followers (Jung, Cho, & Wu, 2003).

Such leaders provide explanations that link the employee's personal identity with the collective identity of their organization, thereby increasing the employee's intrinsic motivation (as opposed to extrinsic motivation only). Intrinsic motivation leads to creativity because people who are so motivated approach problem-solving from novel perspectives (Jing & Avery, 2016). Third, transformational leaders provide intellectual stimulation which encourages followers to think "out of the box." This strategy means that transformational leaders stimulate followers to think about old problems in new ways

and to adopt new approaches towards solving old problems and encourage them to question traditional values and beliefs, to challenge the status quo, and reformulate problems (Bass, Avolio, Jung & Berson, 2003).

Sosik, Kahai, and Avolio (1998) found that groups working under higher levels of transformational leadership generated more idea elaborations and original solutions than groups working under lower levels of transformational leadership. Creativity precedes innovation; hence, intellectual stimulation also stimulates innovation. Xenikou (2017) noted that the focus of transformational leaders is on change of outdated or dysfunctional elements in the organization by stimulating creativity and innovation among followers. It was not clear whether these stated advantages of transformational leadership in respect of innovation apply in SMEs in a country like Nigeria, hence this study examined their relevance in this context.

The conceptualization of transformational leadership by Bass and Avolio (1994) includes idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. In relation to innovation, intellectual stimulation is the most important component of transformational leadership. Bass et al. (2003) defined intellectual stimulation as transformational leaders stimulating followers to question assumptions, challenge the status quo, and reformulate the problem. It also encourages followers to experiment with new and different approaches to their work. Bass (1985) said that transformational leadership style promotes innovation in organizations, but Howell and Avolio (1993) empirically demonstrated that transformational leadership, in contrast to transactional leadership and other leadership styles, facilitates organizational

innovation, which is because transformational leadership style targets change and innovation.

Transformational leadership is significantly positively related to organizational innovation. Jung, Wu and Chow (2008) established that transformational leadership is significantly positively related to organizational innovation, and organizational factors such as culture and structure, and environmental factors such as uncertainty and competition, mediate the relationship. Jung et al. (2008) stated that a culture of employee empowerment and climate for innovation positively mediate the relationship between transformational leadership and innovation. Similarly,they found that while the structure of decentralization positively mediates the relationship, formalization and centralization negatively mediate it.

The relationship is also mediated by employees' perception of environmental uncertainty and the state of competition in the market. Transformational leadership is associated with exploratory innovation, and this is because transformational behaviors include intellectual stimulation which encourages organizational members to challenge existing knowledge, question accepted norms, and think in new ways (Jansen, Vera, & Crossan, 2009). The positive relationship between transformational leadership and exploratory innovation is stronger when the organization faces a rapidly changing environment (Jansen et al., 2009).

Conversely, transactional leadership is associated with exploitative innovation, which is because transactional leadership behaviors exercise a maintenance role and support the incremental improvement and refinement of existing products, processes, and

services. Transformational leadership, in a stable environment, is negatively related to exploitative innovation. In a study in Malaysia, Tajasom et al. (2015) found that transformational leadership style is positively related to innovation performance among small and medium scale enterprises. Innovation performance includes exploratory and exploitative innovation. Thus, in this study, both types of innovation were considered.

There is an overwhelmingly positive view of transformational leadership and innovation, but there are limitations. One such limitation is that if a transformational leader communicates an inspiring vision which does not include experimentation, such a vision may actually hinder innovation if followers are so absorbed in it that they stop thinking outside of it (Rosing et al., 2011). Jing and Avery (2016) noted that followers can become too dependent on a transformational leader, believing that he has everything under control, and can be disappointed if things do not work out. In addition, innovation can be inhibited if followers so trust a leader that they are reluctant to disagree with him, which means that transformational leadership style does not always guarantee innovation in organizations. Other leadership styles can be more effective in promoting innovation in certain situations, but in general, leadership sets the tone for enterprise wide-level innovation and creativity (Cook, 2016). In this study I examined the role of transformational, transactional, and laissez-faire leadership styles of the full-range leadership model in bringing about innovation in SMEs in Nigeria. Having discussed transformational leadership, next is a discussion of transactional leadership.

Transactional Leadership

The third dimension of the neo-charismatic theories of leadership is transactional leadership (Dinh et al., 2014), but since the transformational and charismatic dimensions are generally assumed to be synonymous, transactional leadership is actually the second. Burns (1978) first operationalized transactional leadership and transformational leadership as distinct styles of leadership and argued that transactional leadership is the opposite end of a single continuum from transformational leadership. Burns argued that the relationship between a transactional leader and his followers is a series of exchanges of gratification aimed at maximizing both organizational and personal goals. A transactional leader focuses on exchange of resources according to agreed terms which gives followers what they want in exchange for what the leader wants (Judge & Piccolo, 2004).

McClesky (2014) noted that such exchanges lead to positive results including getting work done, keeping the healthful status of the current organization, sticking to goals, enhancing contract agreements, helping followers meet their goals, highlighting extrinsic returns, focusing on efficiency in the organization, and circumventing needless problems. On the other hand, transactional leadership allows followers to pursue their self-interest, reduce work-place anxiety, and concentrate on achieving clearly defined organizational objectives (McClesky, 2014). In contrast to transformational leadership style, transactional leadership style because it is based on promoting the individual interests of the leader and, subsequently, that of his or her followers in attaining

satisfaction through contractual obligation on the path of both, establishes objectives and monitors and controls the results (Garcia-Morales et al., 2012).

Transactional leadership was more commonplace than transformational leadership, though its consequences were less dramatic (Judge & Piccolo, 2004). Bass (1985) modified Burns' (1978) conceptualizations of transformational and transactional leadership and developed the theory of transformational leadership. According to Bass (1985), transformational and transactional leadership are not opposite ends of a continuum but are rather separate concepts each playing its own role in ensuring effective leadership. Indeed Bass (1997), in discussing contingency theories of leadership, argued that the best leaders are both transformational and transactional. Bass et al. (2003), however, indicated a positive relationship between transactional leadership style and employee performance.

Three of the nine factors of the full-range leadership theory (Avolio & Bass, 1994); contingent reward, management-by-exception (active), and management-by-exception (passive) are associated with transactional leadership. A detailed discussion of the three dimensions follows.

Contingent reward. Contingent rewards system clarifies performance expectations to followers and encourages good performance; this is done by focusing on contractual agreements as primary motivators (Bass, 1985) and employing extrinsic rewards to enhance motivation of subordinates. Transactional contingent reward makes clear the specific role and tasks required of subordinates, sets criteria for measuring performance, and rewards effort spent performing roles and tasks and for achieving set

goals (Ryan & Tipu, 2013; Xenikou, 2017). Judge and Piccolo (2004) described contingent reward as the degree to which the leader sets up constructive transactions or exchanges with followers.

Management-by-exception. Management-by-exception (active) is the degree to which the leader takes action to correct the results of interaction between leader and follower. It represents the readiness of leaders to correct mistakes made by followers before such mistakes create serious difficulties, which implies a close monitoring of follower behavior in anticipation of problems and to take action to correct the problems should they arise (Judge & Piccolo, 2004). Management-by-exception (passive) is the degree to which the leader waits for follower behavior to cause problems before taking corrective action. Such a leader is less active and relates to followers only when things go wrong. This attitude indicates a more external-oriented attachment. No doubt followers do not show a strong emotional attachment to the organization under this type of leader (Delegach, Kark, Katz-Navon & Van Dijk, 2017).

A criticism of transactional leadership style is that it does not often empower followers, for the only power followers have is to be able to withdraw from or contribute more of their labor. Commitment is based on rewards, agreements, and expectations negotiated with the leader because there is little or no intrinsic motivation (Jing & Avery, 2016). Bass and Bass (2009) criticized the transactional leadership style, arguing that leading through rewards only appeals to the selfish interest of the follower and results in low-motivated workers. Another criticism is that transactional leadership style does not encourage leadership development. Oke et al. (2009) argued that transactional leadership

is more related to managerial skills because it involves getting day-to-day routines carried out. In SMEs, leaders are also the managers. Hence, transactional leadership style may aid development of their managerial skills for improved organizational effectiveness.

Transactional Leadership and Organizational Effectiveness and Performance

Under certain contexts and situations, transactional leadership style is more positively correlated to organizational performance than transformational leadership. Bass (1997) noted the transactional-transformational paradigm views leadership as either a matter of contingent reinforcement of followers by a transactional leader or the moving of followers beyond their self-interests for the good of the group, organization, or society by a transformational leader. Transformational and transactional leadership styles may, however, be affected by contingencies. Thus, the best leaders are both transactional and transformational (Bass, 1997). Transactional leadership, for example, is more effective than transformational leadership in helping organizations achieve their current objectives more efficiently. It achieves this by linking job performance to valued rewards and by ensuring that employees have the resources to get the job done (Jing & Avery, 2016). Again, by clearly specifiying roles and tasks for subordinates and the consequences of failure to perform, transactional leaders build confidence in subordinates to put in the effort required to achieve expected levels of performance (Jing & Avery, 2016).

In certain cultures, transactional leadership style is more positively related to organizational peformance than transformational leadership style. For example, Elenkov (2002) found that in Russia transactional leadership style was positively correlated with organizational performance and innovation. Similarly, Ardchivili and Gasparishvili

(2001) noted that managers in post-communist countries of the old Soviet bloc most frequently employed transactional leadership by offering contingent rewards to followers. In Nigeria, Obiwuru et al. (2011) found that transactional leadership style was more positively correlated with organizational performance of SMEs than transformational leadership style. The scholars did state, however, that as the organizations grow, they would have to adopt to a transformational leadership style for competitiveness.

Paracha et al. (2012) found that transactional leadership style was positively correlated with job involvement and job satisfaction among employees working in private school education in Pakistan. It would appear that in some cultures, or in some types of organizations, transactional leadership style promotes organizational performance over and above transformational leadership style. The implication of these findings is that no leadership style fits all contexts, which lends support to the situational and contingency theories of leadership, holding that leadership style is dependent on the context in which the leader is operating (Fiedler, 1967; McClesky, 2014). The connection with the present study is that it justified the decision to test all three leadership styles of FRLT to assess their relationship to innovation performance in SMEs in Nigeria.

Transactional Leadership and Innovation

Many studies have indicated that transactional leadership is positively related to innovation. Jansen et al. (2009) found that in a situation of environmental dynamism, transactional leadership is more positively correlated with exploitative innovation than with exploratory innovation. Active management-by-exception component of transactional leadership has been found to encourage innovation propensity in Pakistan

(Ryan & Tipu, 2013). Prasad and Junni (2016) concluded that transformational and transactional leadership behaviors both influence organizational innovation, but in a dynamic environment, transformational leadership exerts more influence.

Jia, Chen, Mei, and Wu (2018), however, found that while transformational leadership behavior enhances organizational innovation performance, transactional leadership behavior reduces the same. This result is mediated by openness, which means the external search—breadth and depth—for new ideas and technologies. This search can reflect in the level of organizational innovation. Openness enhances the beneficial effect of transformational leadership behavior on innovation while reducing the unpalatable effect of transactional leadership on innovation. These contradictory findings appear to confirm that the influence of leadership styles on innovation depends on the situation facing the organization. For this reason, in the present study I examined the influence of transformational, transactional, and laissez-faire (passive-avoidant) leadership styles on innovation performance in a situation of the SME environment in Nigeria.

Laissez-faire or Passive-avoidant Leadership

Laissez-faire leadership style is the third category of leadership typology in FRLT. Bass and Avolio (1994) referred to this style as nontransactional laissez-faire, and such leaders do not enter into agreements with followers neither do they clarify the paths that help followers move towards desired goals and objectives. Laisse-faire leaders are comfortable with leaving followers to their own devices and not having any disagreements cloud their relationship (Jing & Avery, 2016). Typically, it is a leadership behavior that acts, gives feedback and initiates transaction with colleagues only when it

cannot be avoided (Chaimongkonrojna & Steane, 2015). Laissez-faire leaders do not develop themselves and they certainly do not develop followers (Avolio & Bass, 1994).

Laissez-faire leadership style has been defined as nonleadership (Judge & Piccolo, 2004), a "hands off" approach to leadership (Vann et al., 2014), and avoidant leadership (Barbuto, 2005).These negative descriptions of laissez-faire leadership style may well be stereotypes produced by the excessive adulation of transformational leadership style by most leadership researchers (Vann et al., 2014). In a recent study Franklin (2016) found that laissez-faire leadership style is related to extrinsic motivation among teachers in the United States. On another positive note, Anderson et al. (2016) concluded that laissez-faire leadership allows individuals to perform their duties according to their methods with minimal managerial interference. Minimal managerial supervision engenders trust and confidence in employees, leading to improved performance and quality results.

The passive nature of this leadership style may cause followers to lose motivation, become increasingly unproductive, and create severe problems for the organization. Still, in a situation where employees are highly skilled and well-motivated, the degree of freedom allowed by laissez-faire leadership style may produce great results. Due to such a possibility, I examined the effect of laissez-faire/passive avoidant leadership style on innovation performance of small-to-medium-scale enteprises, some of which were comprised of highly skilled and well-motivated employees.

Laissez-faire leadership style is comprised of two components: laissez-faire avoidant and management-by-exception passive. Management-by-exception passive was

added to laissez-faire avoidant, which was the only component originally included by Bass and Avolio in their FRLT. This addition followed criticism that there was little or no discriminant validity between the management-by-exception passive component of transactional leadership and the laissez-faire avoidant component of laissez-faire leadership (Vann et al., 2014). The latest measurement instrument of FRLT, the MLQ Form 5X, reflects the amended factor structure.

SMEs in Nigeria

Interest in SMEs has been rekindled as the world has come to realize their importance in employment generation, increase in output, and export sources (IFC, 2013). Birch (1979) claimed that SMEs are the most important agents of employment generation in an economy. In confirmation of Birch's assertion, Ajuwon et al. (2017) found that small and medium enterprises far outperformed large enterprises in employment generation in Nigeria. Castillo, Maffioli, Rojo, & Stucchi (2014) concluded that innovation policy aided SMEs in increasing employment generation in Argentina. In most developing countries, SMEs contribute to economic growth and social upliftment because they are usually owned and operated by indigenous peoples and residents, unlike large firms that are usually multinational corporations (Uchenwamgbe, 2013). The Central Bank of Nigeria noted SMEs make very important contributions to the economy in the areas of employment generation, utilization of local resources, and output expansion. They also contribute to the transformation of traditional/local technology, production of intermediate goods, advancement of even development, income redistribution, in addition to increasing government revenue base through taxation

(Uchenwamgbe, 2013). In developing countries, SMEs contribute to economic growth and social upliftment because they are usually owned and operated by locals and residents and use local resources and familiar technology, unlike large firms that are often multinational corporations using advanced technology (Uchenwamgbe, 2013).

The important role played by these business units notwithstanding, literature asserts that 50% or more of the SMEs do not survive beyond their fifth anniversary (NBS, 2013; Smallbone, 1998). This high mortality rate of SMEs in Nigeria is attributable to environmental and internal factors. Environmental factors comprise weak and decadent social infrastructure in the form of epileptic and irregular public power supply, lack of good roads or other means of transportation, shortage of potable water, and inadequate government support (Akuru & Okoro, 2014; Okpara, 2011). Internal factors manifest in leadership and management incompetence, resulting in a lack of focus and inability to source relevant resources (Okpara, 2011). A further manifestation of negative internal factors is inexperience, poor (or nonexistent) record-keeping leading to inability to distinguish between revenue and profit, poor succession planning, and a general lack of business strategy (Onugu, 2005). This study focused on the internal factor of leadership capability, but first, it is important to understand what SMEs are.

There is no one universally agreed definition of SMEs. The definition varies from country to country and even from sector to sector within the same country (Ajuwon et al., 2017). The definition of SMEs is usually based on the number of employees, capital investment, balance sheet size, and sales turnover. Table 1 below shows definitions of SMEs by certain countries and multilateral agencies.

Table 1

Definition of MSMES by Country/Multilateral Agency

Body	Category	Value	Measure
World Bank	SME	≤ 300 employees; ≤ $15 million turnover; ≤ $15 million assets	Employment, Turnover, and Assets
European Union	Micro	< 10 Employees; ≤ € 2 million Turnover or ≤ € 10 million Balance sheet totals.	Employment, Turnover, and Balance sheet total
	Small	< 50 Employees; ≤ € 10 million Turnover or ≤ € 10 million Balance sheet totals.	
	Medium	< 250 Employees; ≤ € 50 million Turnover or ≤ € 43 million Balance sheet total	
UNDP	SME	≤ 200 Employees	Employment
USA	Micro	< 20 Employees	Employment
	Small	20-99 Employees	
	Medium	99-499 Employees	
Japan	Manufacturing	< 300 Employees or Asset Capital <¥ 100 million	Employment or Asset Capitalization
	Wholesaling	< 50 Employees or Asset Capital < ¥30 million	
	Retailing & Services	< 300 Employees or Asset Capital ¥ 10 million	

(*Table continues*)

Body	Category	Value	Measure
China	**Manufacturing**		Employment and Turnover
	Micro	< 20 Employees and Turnover <Yuan 3 million	
	Small	20-299 Employees and Turnover Yuan 3-19.9 million	
	Medium	300 - 1000 Employees and Turnover Yuan 20 - 40 million	
	Wholesale		
	Micro	< 5 Employees and Turnover < Yuan 10 million	
	Small	5 – 19 Employees and Turnover Yuan 10 - 49.99 million	
	Medium	20 – 200 Employees and Turnover Yuan 50 - 400 million	
	Retail		
	Micro	< 10 Employees and Turnover < Yuan 5 million	
	Small	10 – 49 Employees and Turnover < Yuan 5 million	
	Medium	50 – 300 Employees and Turnover Yuan 5 - 200 million	
South Africa	Micro	< 5 Employees; < R 150,000 Annual Turnover; < R100,000 Gross Assets	Employees, Annual Turnover, and Gross Assets (Excluding Fixed Property)
	Very Small	< 20 Employees; < R200,000 – 500,000 Annual Turnover; < R150,000 – 500,000 Gross Assets	
	Small	< 50 Employees; < R2 million – 25 million Annual Turnover; < R2 million – 4.5 million Gross Assets	
	Medium	< 100 - 200 Employees; < R4 million – 50 million Annual Turnover; < R2 million – 18 million Gross Asset	

(*Table continues*)

Body	Category	Value	Measure
Nigeria	Micro	< 10 Employees; < N 5 million Assets	Employment and or Assets (Excluding land and Building)
	Small	10 – 49 Employees; N 5 – 50 million	
	Medium	50 – 199 Employees; N 50 – 199 million	

Source: ESCAP, 2009, Gibson and van der Vaart 2011 and Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) 2013.

Innovation

Theory of creative destruction - Fagerberg (2005) explained, "Innovation is not a new phenomenon. Arguably, it is as old as mankind itself. There is something inherently 'human' about the tendency to think about better ways of doing things and to try them out in practice" (p. 1). Though innovation is nothing new, its origin as a concept in academic discussion is traceable to Joseph Schumpeter (1883-1950). Schumpeter as a social scientist was one of the most original thinkers of the twentieth century. He developed an approach to economic theory that focused on the role of innovation in economic and social change.

In Schumpeter's (1934) theory of innovation and economic development, the researcher argued that the economy should not be viewed through static lenses focusing on the distribution of given resources to competing ends. A process of economic development connotes qualitative change, at both the micro and macro levels, driven by innovation, taking place in historic time. Schumpeter called it a process of creative destruction which cannot be reduced to an equilibrium path (Gaffard, 2008). Creative destruction (Schumpeter, 1950) represents a situation in which there is a constant search

to create something new, simultaneously destroying the old rules and creating new ones. New products, new methods of production, new sources of supply, the exploitation of new markets, and new ways to organize business are examples of innovation. These phenomena combine to *creatively destroy* existing equilibrium and to create a new one, and the cycle continues.

Schumpeter (1934) defined innovation as new combinations of productive resources, and this combinatory activity was labeled "the entrepreneurial function," which will be fulfilled by "entrepreneurs". The entrepreneur will seek to use new products and services (technological innovation) to obtain strategic advantage. Entrepreneurs are business leaders, and their success can depend on how well they use innovation to gain competitive advantage for the enterprise. The relationship between the entrepreneur's leadership style and the accomplishment of "the entrepreneurial function" of facilitating combinations of productive resources to produce innovations was the subject of the present study. Since Schumpeter's pioneering work, other perspectives of innovation have arisen.

Innovation has been defined by different scholars in various ways. Drucker (1985) said that innovation is a specific tool that entrepreneurs utilize to exploit change as an opportunity to offer a different business or service. This definition assumes innovation to imply change and at the same time regards innovation as a tool in the hands of the entrepreneur to produce new goods or services, which is much in line with Schumpeter's theory of innovation and economic development. Drucker further said that innovation can be presented as a discipline that can be learned and be practiced.

Freeman and Soete (1997) argued that industrial innovation includes the technical, design, manufacturing, management, and commercial activities involved in the marketing of a new (or improved) product or the first commercial use of a new (or improved) process or equipment. Another definition states that innovation is the successful exploitation of new ideas (UK Department of Trade and Industry, 2004). Oke, Munshi, and Walumbwa (2009) stated that innovation involves the discovery of new things and the commercialization of such discoveries. Innovation can be categorized into the discovery of a completely new thing (radical innovation) and an improvement of something that already exists (incremental innovation). What is implied in the motley views about innovation by various scholars is the absence of agreement on a standard definition of the term.

Innovation is not to be confused with invention. Invention is the first combination of ideas around a concept. Tidd, Bessant & Pavitt (2005) said that this concept may be one identified through perception of a need, market research, or action of competitors. Invention focuses on the development of new ideas and, in a pragmatic sense, is generally measured by the number of patents whereas innovation is generally assessed by the number of new products (Löfsten, 2014). Löfsten (2014) defined innovation as the development of commercially viable products or services from creative ideas. Combining the definitions of innovation and invention leads to the conclusion that an innovation represents the successful commercialization of an invention to gain strategic advantage.

In general, no one factor drives innovation, rather there are several simultaneously occurring determinants. Scholars of economics and the management of technology

offered three major perspectives of technological change. Coccia (2017) named the three principal approaches as induced innovations, evolutionary theory of technological change, and path-dependent development of innovations. The first, induced innovations, indicates that *demand-pull* factor is important for innovations. The famous economist, Hicks, argued that a change in the relative prices of factors of production can spur innovation and inventions of a kind that is directed at economizing the use of a factor that has become relatively expensive (Coccia, 2017).

The second approach, evolutionary theory of technological change, is based on (a) local search for technical innovations, organizational routines and learning processes; (b) imitation of the practices of other firms; and (c) satisfying behavior of firms. The third approach, the path-dependence development of innovation states that current choice of techniques may influence the future characteristics of technology and knowledge over the long run (Coccia, 2017). Coccia (2017) argued that none of the three perspectives for understanding the sources of technological change, on its own, has led anywhere. Rather what is required to improve our understanding of the sources of technological change are attempts to construct bridges linking the separate approaches. The need for bridges to link the three approaches requires an understanding of the types of innovation and the linkages among them.

Typologies of Innovation

Following Schumpeter's theory of creative destruction, other scholars extended the concept by applying it to the competitive environment faced by firms in industry. Abernathy and Clark (1985) mapped out the winds of creative destruction in which the

authors developed a framework for analyzing the competitive effects of innovation. Abernathy and Clark introduced the concept of transilience, which is the capacity of an innovation to influence the established production and marketing systems of an industry. They primarily evaluated innovation in relation to its implications for the success (or failure) of the innovating firm engaged in competitive rivalry. The scholars' main concern was with how innovation affects the relative advantages of actual and potential competitors. Abernathy and Clark argued that innovation is not a single phenomenon because some destroy, disrupt, or make obsolete established competence while others refine and improve. They argued further that the innovations produce effects on production systems that may be quite different from innovations' "linkages to customers and markets" (Abernathy & Clark, 1985, p. 4). The scholars identified four "modes" of innovation, each of which requires different organizational and managerial skills (Figure3).

Niche Creation	**Architectural** Disrupt existing/create new linkage
Conserve/entrench existing competence **Regular**	Disrupt/obsolete existing competence **Revolutionary**

Figure 3. Modes of innovation. Source: Abernathy and Clark (1985:8)

Architectural innovation. The first mode is *architectural* innovation, which describes innovation that introduces a new technology to completely change the established systems of production and open new linkages to markets and users. Such an

innovation creates, in its wake, new industries and reforms old ones. An early example of architectural innovation is the Ford Model T vehicle of 1907, which revolutionized the personal transportation industry. A modern equivalent, amongst others, is the change that digital technology, which has led to convergence of mobile phones and personal computers with the internet, has brought into the medical industry (Topol, 2015). Patients can now generate medical data using their own digital devices and communicate the data through their smart phones to their doctors. This development has given rise to industries producing do-it-yourself medical test devices. Architectural innovation stands out, in a real sense, as the creative adaptation and application of latent technologies to erstwhile unanticipated user needs.

Niche creation innovation. The second mode is the *niche creation* innovation phase described as the opening of new market opportunities using existing technology. The essential feature of this mode of innovation is the preservation and strengthening of established technical designs but it may involve the refinement, change, or improvement of an otherwise established technical design to support a new marketing thrust (Abernathy & Clark, 1985). An example of niche creation innovation is Sony's Walkman, which is basically the combination of a lightweight earphone with a portable radio or media player. This refinement in established design created a new market niche in personal audio products. Similarly, in the fashion industry, makers of women's clothes use a combination of color, fabrics, ornamentation, configuration, and finishes to create new market niches. In some cases, niche creation innovation involves a small change in technology whose impact on production systems is incremental. What is important is that

the change builds on established technical knowledge to improve its applicability in new or emerging markets. Small-to-medium firms and service firms tend to focus on niche creation and incremental innovation (Oke Burke & Myers, 2007).

Regular innovation. The third mode is *regular* innovation, which involves change that is almost invisible because it builds on established technical and production competence applied to existing markets and customers. Regular innovation refers to how firms entrench themselves in existing markets while at the same time conserving their established technical and production competence (Lee, Smith & Pan, 2016). It is a form of incremental innovation requiring minor modifications of a firm's products, processes, and marketing strategies. Over a significant period, these modifications can have a significant effect on product characteristics, and in addition to entrenching established competences, create linkages to customers and markets.

Revolutionary innovation. The fourth mode is *revolutionary* innovation, which refers to innovation that disrupts and renders obsolete established technical and production competences but conserves existing markets and customers. The disruption may arise from either, or a combination of, the introduction of a new technology, implementation of recently developed concepts or ideas, company restructuring, and change in organizational culture (Lee et al., 2016). A recent example of this type of innovation is the launch of discounted airlines whose method of operation and service delivery relies on competences that are completely different from those of traditional airlines. The market of air travel remains largely unchanged, but its linkages are strengthened by this new mode of operation. A revolutionary innovation may have a

disruptive impact on manufacturing but may not captivate the market. Hence, Abernathy and Clark (1985) argued that the power of an innovation to unleash Schumpeter's "creative destruction" on an industry should "be gauged by the extent to which it alters the parameters of competition, as well as by the shifts it causes in required technical competence" (p.13).

The model of Schumpeter (1943) and Abernathy and Clark (1985) which assumes a lone entrepreneur bringing innovation to the market is now superseded by research that shows that different actors working together in iterative processes of trial and error achieve successful commercial exploitation of new ideas (Laursen & Salters, 2006). Newer models of innovation have shed light on the interactive nature of the innovation process, giving rise to the realization that innovators rely heavily on lead users, suppliers, and institutions within the innovation system. Abereijo, Adegbite, Ilori, Adeniyi, & Aderemi (2009) found, in this connection, that key information sources for innovation by Nigerian SMEs in manufacturing are customers, suppliers of equipment and machinery, conferences, seminars, and business associations. Innovators do not often work alone but as teams that come together based on trust nurtured by a community of practice within a dense network of interactions (Laursen & Salters, 2006).

Chesbrough (2003) had earlier suggested that many innovative firms have shifted to an *open innovation* model. Open innovation involves a strategy of collaborating with other organizations and is defined as "the pooling of knowledge assets for innovative purposes where the contributors have access to the inputs of others and cannot exert exclusive rights over the resultant innovation" (Chesbrough & Appleyard, 2007, p.57).

Because the innovation process is anchored on interactions between individuals and groups, it is presumed that leadership plays a crucial role in steering the interactions towards achieving the desired goals. The present study aimed to ascertain the relationship between leadership style and the successful shepherding of innovation processes in SMEs in Nigeria.

Radical and incremental innovation. McDermott and O'Connor (2002) stated that incremental innovation typically involves the extension of products offered currently or logical extensions to existing processes, but radical innovation involves the application or development of quite new technologies or ideas into markets that either do not exist or need spectacular behavior changes to existing markets. Radical innovations often form the fountain from which future generations of a product spring, and companies that are leaders in a product line often lose their leadership position when, due to radical innovation, a shift to new technologies occurs (Abernathy & Clark, 1985; Christensen, 1997). McDermott and O'Connor argued, therefore, that the successful development of radical innovations is critical for the long-term survival of many of today's firms. Developing a radical innovation, however, is difficult because of the existence of barriers and because it is full of complexity and uncertainty (Sandberg & Aarikka-Stenroos, 2014). Innovation barriers can be obstacles to a firm's innovation processes.

Sandberg and Aarikka-Stenroos (2014) investigated barriers to radical innovation identifying in the literature two most common classifications of barriers: internal and external barriers. While internal barriers arise from within the firm and relate to such issues as financial resources, competences, and mindsets; external barriers originate from

a firm's external environment and arise from its interactions with other organizations and other actors within the economic and innovation systems. External barriers relate to such issues as behavior of competitors, customers, and government. This division enables the firm to know which barriers it can influence and those that are beyond its control. In this study, the influence of leadership style in overcoming barriers to innovation was examined.

Norman and Verganti (2014) viewed incremental and radical innovation from the perspective of design research versus technology and meaning change. Employing the concept of hill-climbing in design research, the authors graphically distinguished incremental from radical innovation. Incremental innovation is like hill-climbing in a terrain whose topology is unknown wherein the aim is to reach the maximum height or the summit of a known hill. The climber is unaware that there could be other hills with higher summits than the present one.

Advances in technology or a change of meaning— radical innovation—can shift the terrain to a new one with hills with higher summits such that a new climbing effort is required to reach the new summit. Improvements in products or processes driven by human-centered design as used in product design cannot but produce incremental innovations. Radical innovations, on the other hand, are never driven by human-centered design but by advances in technology, or, by a deliberate change in the meaning of a product and its uses which allows for radical innovation using existing technology. Hence, Norman and Verganti (2014) defined incremental and radical innovation for products and services in the following terms:

1. "*Incremental innovation:* improvements within a given frame of solutions (i.e., "doing better what we already do"); and
2. *Radical innovation:* a change of frame (i.e., "doing what we did not do before")." (p. 82)

According to the Norman and Verganti, what differentiates the two is mainly if the innovation is viewed as continuous improvement of existing practices, or as novel, unique and discontinuous. Three criteria identify a radical innovation: (a) The invention must be new and dissimilar from others that came before it, (b) it must be unique and dissimilar from current inventions, and (c) must be adopted and would influence future inventions. This last criterion is a measure of the success or otherwise of the radical innovation, for it should be noted that not all radical innovations are commercially successful. An example of a radical innovation that was a commercial failure is Apple's introduction of the QuickTake digital camera. Though the product met the first two criteria of radicalness, it failed in the market place.

Radical innovation, which is often described as disruptive, or competence destroying, or breakthrough, has garnered the topmost attention of innovation scholars within the last two decades. For example, Abernathy and Clark's (1985) architectural and revolutionary innovation categories characterized by disruption and rendering obsolete existing competences are radical innovations. Christensen, Raynor, and McDonald (2015) revisited Christensen's theory of disruptive innovation declaring that it has been misunderstood. The authors redefined the theory saying that not all radical innovations fit into it. The idea of "disruption" describes a process whereby a smaller company with

limited resources can successfully challenge established incumbents, which occurs because incumbents are focused on improving their products to satisfy their most demanding customers, yet they exceed the needs of some segments and ignore the needs of others.

New entrants (usually, smaller companies) target these overlooked segments and, gaining a foothold, soon begin to deliver functional products at a lower price. Because they are after higher profitability by concentrating on higher end segments, incumbents do not respond vigorously. Entrants, having gained a foothold, now upscale and begin to offer products that mainstream customers want while retaining those segments that gave them a foothold in the first place. When mainstream customers begin to adopt the entrant's products in high volume disruption occurs (Christensen et al., 2015). O'Reilly and Tushman (2007) posited that for incumbents to survive and compete in an environment of disruptive innovation, they must become ambidextrous. An ambidextrous structure allows incumbents to explore for radical innovation while at the same time exploiting through incremental innovation opportunities for satisfying existing market segments, which involves risk taking.

Innovation is truly a trade-off among competing risks. Meuus and Oerlemans (2000) listed the competing risks: First, the risk of changing products, processes, and routines, and these threaten the reliability and accountability of organizations; second, the risk of organizational decline or even death due to change. Innovation processes in organizations have both effects. Due to its pro-innovation bias, this aspect of risk of the associated change processes in innovations is often ignored in much innovation research

(Freeman & Soete, 1997; Leonard-Barton & Doyle, 1996). Leadership style affects the ability to manage the risks associated with innovation as a process of change.

Innovation performance and organizational learning. The dependent variable in this study is innovation performance, defined as the contribution of product and process innovations to a firm's economic performance (Meeus & Oerlemans, 2000; Tajasom et al., 2015). Based on this definition, innovation performance can be measured by a firm's innovative activities such as research and development (R&D) spending, patenting and patents, and new products (Löfsten, 2014). Innovation performance refers to the extent to which firms introduce inventions to the market as, for example, the rate at which they introduce new products, process systems, or devices (Tajasom et al., 2015). Previous studies have measured innovation performance using R&D investment and patents, and new products as indicators of innovation activities in firms. Still, these measures are more relevant for big firms and may not be suitable for SMEs, which formed the focus of the present study.

Most SMEs do not have R&D departments but engage in innovative activities by modifying their products to meet customers' needs, and such products are difficult to patent (Tajasom et al., 2015). For this reason, Beneito (2006) suggested that the choice of indicators of innovation performance should be determined both by the objectives of the analysis to be performed and on the available data. In this study, the objective was to ascertain the relationship, if any, between leadership style and innovation performance in Nigerian SMEs. Further, according to Oyelaran-Oyeyinka (2002), Nigerian SMEs do not necessarily innovate in formally recognized ways. In this study, therefore, the instrument

proposed by Meeus and Oerlemans (2000) for performance improvements based on product and process innovations was considered a more suitable measure of innovation performance. The instrument measures innovation performance by considering the contribution of innovation to cost-cutting efforts, increase in turnover, increase in profits, and improvements in quality (Tajasom et al., 2015).

March (1991) stated that organizational survival depends on the organization's ability to learn how to explore new opportunities while exploiting current realities. This statement is very relevant in today's globalized economy, characterized by stiff competition and increasing demand for new high-quality products and services. Hence, innovation has become a prime factor for competitiveness. Failure of incumbent firms to abide by March's principle has caused great firms to fail - the innovator's dilemma (Christensen, 1997). A firm that focuses entirely on exploiting current realities will fail, and so will a firm that focuses exclusively on exploring new opportunities. The capability of leadership to flexibly switch between both exploratory and exploitative activities is a main requirement of innovation (Rosing, et al. 2011)

A balance must be struck in pursuing the two capabilities; hence, a firm must pursue both radical and incremental innovation, and performance here depends on different types of knowledge accumulation capabilities (Fores & Camison, 2016). Fores and Camison (2016) noted that knowledge accumulation processes involve internal knowledge creation and external knowledge absorption. A firm must possess an organizational culture that enables internal knowledge creation and external knowledge absorption for innovation (Slater et al. 2014). The existence of this culture depends on the

characteristics of senior leadership implying that the style of leadership affects innovation processes (Slater et al., 2014). In the present study I examined the effect of senior leadership on innovation performance in Nigerian small-to-medium-scale enterprises.

Summary and Conclusions

In this section, the literature was reviewed on the full range leadership theory (FRLT) which outlines transformational, transactional, and laissez-faire leadership styles, comprised of nine components, as the all-embracing behaviors suitable for analyzing leadership factors in organizations. Transformational leadership style is the most studied and most recommended by researchers of leadership in Nigerian enterprises as having the most significant impact on organizational performance (Adanri, 2016; Ejerem & Abasilim, 2014; Uchenwamgbe, 2013). Obiwuru et al. (2011) differed, having found that transactional leadership is significantly and positively related to organizational performance among Nigerian SMEs. There is, therefore, uncertainty about the relationship between the leadership styles of the FRLT and organizational performance in Nigerian enterprises. Added to this uncertainty is the lack of understanding about the relationship between the leadership styles of the FRLT and innovation performance in Nigerian SMEs. Transformational leadership style, for example, is known to influence innovation performance in Malaysian SMEs (Tajasom et al., 2015).

Innovation performance is the contribution of new products, new services, and new processes to the economic performance of enterprises. Innovation is critical for firm survival, and SMEs in Nigeria are known to face serious survival problems, leading to most closing shop within 5 years of existence. This study filled this gap in understanding

and extended knowledge in the discipline of leadership of Nigerian SMEs. Literature on innovation and innovation performance was also reviewed as was literature on SMEs. The approach of the study was to use a quantitative methodology employing non-experimental correlational survey design to examine the relationship between the independent variables which are transformational, transactional, and laissez-faire leadership styles, and the dependent variable of innovation performance. The conceptual model is represented in Figure 4.

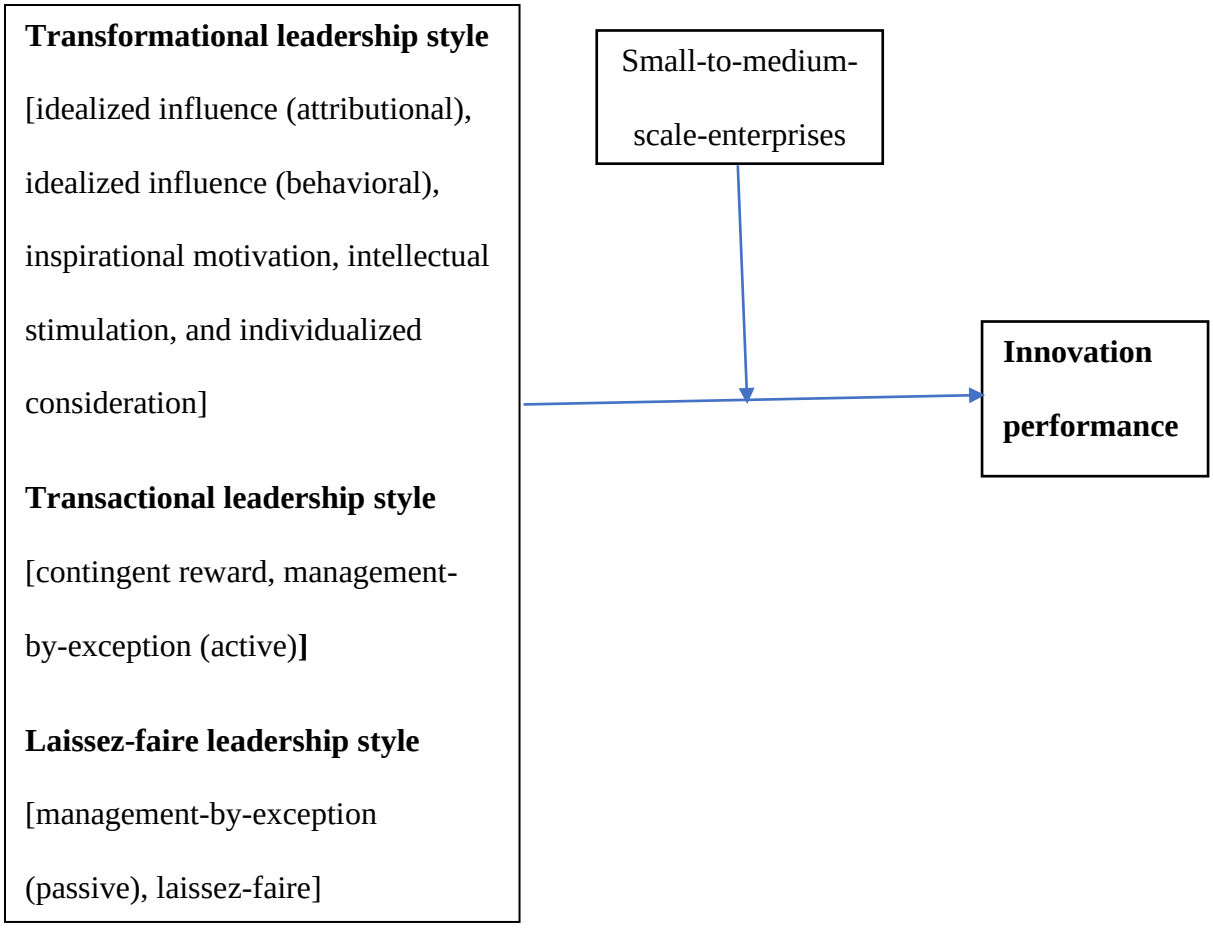

Figure 4. A conceptual model of the relation between FRLT leadership styles and innovation performance in SMEs.

Chapter 3: Research Method

Introduction

The purpose of this quantitative survey study was to examine the relationship between leadership styles and innovation performance within SMEs in Nigeria. Leadership styles examined are transformational, transactional, and laissez-faire/passive-avoidant, which constitute the full range leadership model (Avolio & Bass, 1991). The transformational leadership style (TFL) is generally defined as behavior that elevates and broadens followers' goals and motivates them to perform beyond the expectations specified in implicit or explicit exchange agreements. The transactional leadership style (TL) is generally defined as behavior that focuses on the exchange of resources and fulfilling of terms specified in implicit or explicit exchange agreements between leader and follower. The laissez-faire leadership style (PAV) is generally defined as behavior that avoids taking decisions and is absent when leadership is needed.

In the second part of the study I asked respondents to identify innovation performance within their organizations. Innovation performance (IP) is the rate at which the enterprise introduces new products, process systems or devices to satisfy existing and emergent customers (Tajasom et al., 2015). The independent variables are TFL, TL, and PAV leadership styles. The dependent variable is IP. This study filled the gap in understanding the contribution of innovation to performance of SMEs in Nigeria, most of which struggle to survive in a difficult business environment.

In this chapter, I explain the methods that were utilized to address the research question in the proposed study. I elucidate the research design and the rationale for the

choice as well as the methodology of the study. I provide details of the population, sampling and sampling procedures, procedures for recruitment, participation, and data collection. I also provide details of instrumentation and operationalization of constructs. This chapter equally contains a discussion of the data analysis plan, the threats to validity, and ethical procedures.

Research Design and Rationale

The independent variables in this study are transformational, transactional, and laissez-faire leadership styles which, according to FRLT, are represented by nine factors: idealized influence (attributional), idealized influence (behavioral), inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, management-by-exception (active), management-by-exception (passive), and laissez-faire. The dependent variable is innovation performance (IP). The research question and hypotheses are as follows:

RQ: How do transformational, transactional, and laissez-faire leadership styles (TFL, TL, & PAV), as measured by the Multifactor Leadership Questionnaire (MLQ-Form 5X), relate to innovation performance (IP), as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria?

$H_0$1**:** There is no statistically significant relationship among TFL, TL transactional, and PAV leadership styles, as measured by the MLQ-Form 5X and IP, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

H_a1: There is a statistically significant relationship among TFL, TL, and PAV leadership styles, as measured by the MLQ-Form 5X and IP, as measured by an eight-item IP scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

$H_0 2$: Leadership styles of the FRLT (TFL, TL, and PAV) do not statistically significantly predict IP in SMEs.

$H_a 2$: Leadership styles of the FRLT (TFL, TL, and PAV) statistically significantly predict innovation performance in small-to-medium-scale enterprises.

The research design for answering the research question and the rationale for its choice form the subject of the paragraphs that follow. A research design is that approach within a research method that is selected for addressing research objectives and answering research questions. The selection of a research design has implications for issues such as external validity and the ability of the researcher to establish causality of findings (Bryman, 2012). The research method can be quantitative, qualitative, or mixed-method (Frankfort-Nachmias et al., 2015). In a quantitative research method, the researcher seeks to quantify the relationship between variables (Frost & Hamman, 2017), and a quantitative approach allows the replication of a model to understand a set of relationships in new contexts (Black, 2005: Khadhaouria & Jamal, 2015). In this study, a model based on selective and adaptive perspective to innovation performance (Meeus & Oerlemans, 2000) was adapted and used to explain a leadership style's influence on innovation performance.

The quantitative research method uses language such as, 'to investigate', 'measure', 'compare', 'correlate', 'test', 'accept', or 'reject'. Research designs capable of

operationalizing these objectives are surveys, experimental, quasi-experimental, ex post facto, and descriptive correlational. Straits and Singleton (2011) posited that the quantitative research design attempts to remove the investigator from the investigation. Qualitative research, on the other hand, is based on constructivist, interpretivist philosophical assumptions which posits that people best understand social phenomena through a consideration of the meanings that individuals or groups ascribe to human and social problems (Saunders, 2009). In the same vein, Harrowing, Mill, Spiers, Kulig, and Kipp (2010) posited that this type of research is aimed at discovering meaning not cause-and-effect while typically focusing on process and context. In qualitative research, the researcher is the instrument for data collection and, rather than avoid a relationship with the participant, he or she does seek, and is dependent upon, it to gain the *emic*, or insider, perspective (Rubin & Rubin, 2005).

The objective of the present study was to examine the relationship, if any, between variables and not to discover the meanings that individuals or groups ascribe to different human and social problems. A correlational design is most suitable for exploring relationships between variables because it allows researchers to describe a situation, problem, or group in a precise and accurate manner (Straits & Singleton, 2011). It is a form of descriptive research involving an examination of whether there is a relationship between two or more variables, and the extent of the relationship (Creswell, 2014). Although correlational designs will not allow a researcher to detect cause-and-effect relationships, it is a process of structured fact-finding based on numerical data (Straits & Singleton, 2011).

Descriptive research is a process of gathering data within a contextual framework (Straits & Singleton, 2011), and though not reliable for determining cause-and-effect relationships it allows researchers to accurately describe problems, situations, or groups (Frankfort-Nachmias et al. 2015).

Correlational design allows researchers to carry out studies in natural and real-life settings unlike experimental design which enable researchers to control the extrinsic and intrinsic variables that affect test results (Frankfort-Nachmias et al. 2015). The ability to control the introduction of the independent variable, for instance, helps the researcher to determine the direction of causation and strengthens the internal validity of the study but researchers are often unable to replicate real-life social situations under experimental designs hence the designs are weak in external validity. Correlational studies are strong in external validity (Frankfort-Nachmias et al. 2015) and are useful for studies involving real-life scenarios rather than controlled environments.

A disadvantage of correlational design is that the lack of adequate control over rival explanations makes it difficult for researchers to make unambigous inferences (Frankfort-Nachmias et al. 2015). As Creswell (2014) noted, though correlational designs do not carry with them the problems associated with classic experimental designs, especially in relation to assessing experimental and control groups, a significant problem with correlational designs is the inability of researchers to specifically articulate why changes occur, and this is due to the lack of randomisation in the selection and placement of research participants. In experimental designs for instance, as a form of control, researchers randomly assign participants to groups. Thus when one group receives a

treatment and the other does not, the researcher can isolate whether it is the treatment and not other factors that influence the outcome (Creswell, 2014). Such a precise articulation of cause-and-effect is difficult to produce under correlational, cross-sectional designs.

Apart from the quantitative correlational design, qualitative designs such as phenomenology, case study, and grounded theory were considered in choosing a design for the proposed study. The qualitative approach, unlike the quantitative, is based on a constructivist, interpretivist philosophical approach which holds that social phenomena is best understood through an examination of the meaning that individuals and groups ascribe to social reality (Saunders, 2009). The qualitative approach's strategies for inquiry, data collection, data analysis and interpretation differ from quantitative methods. For example, while the quantitative researcher uses instruments developed by others or by the researcher to obtain data, the qualitative researcher is often the instrument and is immersed in the research to be able to extract meanings and interpretations of phenomena as viewed by research participants (Rubin & Rubin, 2005).

The aim of phenomenological design, for example, is to analyze and understand the meaning assigned by individuals and groups to social phenomena encountered in the course of day-to-day living (Frankfort-Nachmias et al., 2015). Case study research, on the other hand, provides rich and exhaustive accounts of an entire social process, in a single research setting (Frankfort-Nachmias et al., 2015). In grounded theory researchers attempt, based on analytic induction, to construct (versus test) a set of theoretical propositions based on their experiences in the field (Frankfort-Nachmias et al., 2015).

Due consideration has been given to qualitative designs as described, and I note that I used instruments developed and tested by other researchers and thus I myself was not the instrument as is the case in qualitative studies. The quantitative approach appears to be more suited to the proposed study. Within the quantitative approach, the tool of choice for researchers now is the survey questionnaire (Zhang, Li & Zhang, 2015). Frankfort-Nachmias et al. (2015) noted that researchers often employ survey methodology to conduct research because observational methods are impracticable when responses from a sample of individuals are needed. In this research I used the Multifactor Leadership Questionnaire (MLQ-Form 5X) to collect data about leadership styles while I obtained data on innovation performance by using an eight-item questionnaire based on a five-point Likert-type scale (Meeus & Oerlemans, 2000).

Online surveys (OLS) have become a popular method for using the survey methodology (Frankfort-Nachmias et al., 2015). Zhang et al. (2015) stated that online surveys are low-cost, easily administered, convenient for the participants, and time efficient. The main disadvantage of online surveys, however, is the probability of a low response rate (Frankfort-Nachmias et al., 2015). I performed statistical analysis on the data using tools such as multiple linear regression model to test the hypotheses and Pearson's correlations coefficient to measure the strength and direction of the relationship between the components of each leadership style with innovation performance in SMEs.

Population

The research focused on understanding what leadership styles facilitate innovation in SMEs. The population is the enterprises in the register of the Small and

Medium Enterprises Development Agency of Nigeria (SMEDAN). SMEs are those that have 10 to 199 employees (SMEDAN, 2013). Registering with SMEDAN affords enterprises the opportunity of benefitting from government programs of assistance to SMEs. The target population for the study was the SMEs engaged in manufacturing or information and communication technology (ICT), are based in Lagos, the commercial capital of Nigeria, and are registered with SMEDAN. These sections of the SME sector are the most innovative (Abereijo et al., 2009). Based on a 2013 survey by SMEDAN/NBS, there are 67,396 SMEs out of which 13,990 SMEs are in the manufacturing and ICT sectors. This 2013 survey is being updated and I was assured that the updated list will be available for my study (Appendix C).

Sampling and Sampling Procedure

A main characteristic of survey design is that data are to be collected from a fraction (sample) of the population (Fowler, 2009). Sampling is the statistical technique that enables a researcher to make inferences about a population by studying a sample of it. To obtain a sample that is representative of the population, the following sampling procedures are generally available: simple random sampling, stratified sampling, strategic sampling, systematic sampling, cluster sampling, and stage sampling. A simple random sampling technique ensures that every item in the population has an equal chance of being selected (Creswell, 2014). Stratified sampling is used to ensure that different groups of a population are represented adequately in the sample. Systematic sampling is like random sampling. The main difference is that from the sampling frame, individual

members of the sample are selected at regular intervals. Cluster sampling and stage sampling are other sampling techniques (Creswell, 2014).

Sampling Frame

Two top leaders, who are responsible for steering the activities of their SMEs towards realizing commonly accepted visions and agreed goals, each of the selected enterprises formed the respondent base. By estimates provided by NBS (2013), 60% of the 13,990 manufacturing, and ICT SMEs, are based in Lagos hence the sample frame approximates 8,394 enterprises. Ninety-seven SMEswere randomly selected from this frame and the two top leaders of the enterprises formed the respondent base giving a total of 194 respondents. The Enterprises Development Center (EDC) in Lagos has a database of contact information for the respondent base of this study and I had their pledge to deliver the data collection instrument to the respondents (Appendix D). EDC is well known among SMEs as an institution that assists their growth and development hence they were favorably disposed to respond to data requests from it.

In this study, I selected a random sample based on the industry list that was provided. Stratified random sampling procedure was adopted because of the need for those enterprises in the population that are more sensitive to the variable, innovation performance, to be well represented. These are the SMEs engaged in manufacturing, and ICT. SurveyMonkey®, an online survey platform, distributed the survey and collected the responses needed to complete the study. I received the collected responses and prepared the data for analysis.

Sample Size

The sample size is one important feature in survey research because it answers the question: how many people in the population did I sample to determine the result, effect, or relationship, if any, that exists in the population? (Bartlett, Kotrlik, & Higgins, 2001). Kaminski (2003) said that sample size represents the number of respondents selected for a study. My sample must be large enough to detect the relationship, if any, that really exists between the variables in the population. Three interrelated factors that affect sample size are: statistical power (inverse of β), the effect size, and the alpha (statistical confidence). Statistical power (1-β) determines the probability that a statistical test will detect a real treatment effect or a relationship between the variables, thereby avoiding Type II errors, or failing to reject a false null hypothesis. Alpha is the probability that a statistical test result occurred by chance and a probability of making a Type I error: rejecting a true null hypothesis (Field, 2013). Effect size allows a researcher to move away from merely identifying a statistically significant effect toward a quantitative description of the size of the effect (Fritz, Morris, & Richler, 2012).

A high statistical power increases the likelihood that the result was not obtained purely by chance. In quantitative research in the social sciences, .8 or 80% is the generally recommended power (Fritz et al., 2012). Alpha is set at .05 and a medium effect size of .15 is chosen. Using G*Power (Faul, Erdfelder, Buchner& Lang, 2009) estimates the sample size for this study is 77. This sample size obtained through G*Power 3.1.9.2 calculations was increased by 25% to provide for non-response, sample

error, and a normal distribution of the data (Adanri, 2016). A description of the G*Power computation is as follows:

F tests - Linear multiple regression: Fixed model, R^2 deviation from zero

Analysis:	A priori: Compute required sample size		
Input:	Effect size f^2	=	0.15
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Number of predictors	=	3
Output:	Noncentrality parameter λ	=	11.5500000
	Critical F	=	2.7300187
	Numerator df	=	3
	Denominator df	=	73
	Total sample size	=	77
	Actual power	=	0.8017655

The sample size was increased to 97 enterprises, and two leaders of each of the SMEs who are responsible for steering the activities of the entity to achieve commonly accepted visions and agreed goals, were selected to participate in the survey giving a total of 194 participants. These leaders are those responsible for the firm's strategic direction. Tajasom et al. (2015) explained that such individuals are selected because of their knowledge and expertise concerning their firm's operations and direction. SMEs tend to have a relatively limited number of products and processes hence their owners/CEOs and

managers likely have a clear understanding of their business operations. This clear understanding should enhance the accuracy of responses (Tajasom et al., 2015).

Procedures for Recruitment, Participation, and Data Collection (Primary Data)

After obtaining Walden University IRB approval, I sought the aid of EDC to recruit the participants and with an introduction letter from EDC to the participants SurveyMonkey® distributed the online questionnaires which is the MLQ-Form5X and the eight-item instrument for measuring IP (Meeus & Oerlemans, 2000). Both are Likert-scale instruments.

Data Collection Strategy

Table 2 shows the factors that were included in the internet survey and a description of the instruments used to collect relevant data.

Table 2

Factors of Online Survey

Factor	Description
Leadership style	MLQ-Form5X
Innovation performance	Eight-item instrument (Meeus & Oerlemans, 2000)

Leadership Style

The MLQ-Form 5X was used to measure TFL, TL, and PAV leadership styles as represented by the nine subscales: idealized influence (attributional), idealized influence

(behavioral), inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, management-by-exception (active), management-by-exception (passive), and laissez-faire (see Table 3).

Table 3

MLQ 5X Leadership Categories and Subscales

Transformational (TFL)	Transactional (TL)	Laissez-faire (PAV)
Idealized influence (attributional)	Contingent liability	Management-by-exception (passive)
Idealized influence (Behavioral)	Management-by-exception (active)	Laissez-faire
Inspirational motivation		
Intellectual stimulation		
Individualized consideration		

Innovation Performance

IP was measured using an eight-item instrument developed by Meeus and Oerlemans (2000) to measure the contribution of product and innovations to economic performance of enterprises.

Data Collection

Straits and Singleton (2011) emphasized researchers must be aware of four problems that can occur when conducting research using human subjects: potential harm, informed consent, deception, and privacy issues. Surveys administered by SurveyMonkey® allow the researcher to introduce an online informed consent form to be completed by participants indicating to them that they have an option to participate or not. After reading the form, those who wish to participate will indicate by selecting "Yes" and those who do not wish to participate will indicate by selecting "No". Those who wish to participate may continue with the online survey while those who do not wish to participate will be led to the end of the survey. In introducing the informed consent form I ensured that the form met the requirements of the Walden University Institutional Review Board (IRB). The form is shown at Appendix F.

The MLQ-Form5X and the eight-item scale were administered through SurveyMonkey® to collect data. SurveyMonkey® has a feature that aggregates data collected for the researcher. I formatted the aggregated data into an exportable file to SPSS version 25 software for analysis.

Instrumentation

The purpose of this study was to ascertain whether a statistically significant relationship exists between leadership styles as measured by the Multifactor Leadership Questionnaire (MLQ-Form5X) and IP in SMEs as measured by an eight-item scale developed by Meeus and Oerlemans (2000). I used the MLQ-Form5X (Appendix A) to measure TFL, TL, and PAV, and the eight-item scale (Appendix B) to measure IP.

The MLQ-Form5X was developed by Bass and Avolio (1994). It is a validated instrument useful for measuring the nine components of the leadership styles of the full range leadership model (see Table 2). It is probably the most widely used instrument to measure leadership. The 45-item MLQ-Form 5X is a copyrighted instrument of Bass and Avolio and is published by Mind Garden Inc. The MLQ-Form 5X questionnaire comprises 36 items representing predictor variables (see Table 4) and 9 items representing outcome variables. It is based on a 5-point Likert-type scale ranging from *not at all* (1) to *frequently* (5). For each question, the respondent indicates the degree of agreement or disagreement or how frequently the statement was true in their case by circling an option (Tajasom et al., 2015).

Table 4
MLQ 5X Leadership Characteristics, Scales, and Item

Leadership characteristic and scale	Items
Transformational	
Idealized attributes (IA)	10, 18, 21, 25
Idealized behaviors (IB)	6, 14, 23, 34
Inspirational motivation (IM)	9,13, 26, 36
Intellectual stimulation (IS)	2, 8, 30, 32
Individualized consideration (IC)	15, 19, 29, 31
Transactional	
Contingent reward (CR)	1, 11, 16, 35
Management-by-exception: active (MBEA)	4, 22, 24, 27
Laissez-Faire	
Management-by-exception: passive (MBEP)	3, 12, 17, 20
Laissez-faire (LF)	5, 7, 28, 33

Validity and Reliability

Antonakis et al. (2003) examined the validity of the measurement model and factor structure of Bass and Avolio's MLQ-Form 5X and concluded that it is a valid and reliable instrument that can adequately measure the nine components that comprise the full-range theory of leadership. Dimitrov and Darova (2016) revealed that the MLQ has been used thousands of times in studies of leadership in the United States and has been adapted for use in 22 other countries of the world hence, it was appropriate for use in the present study. Reliability and validity are research techniques used to assess the psychometric properties and accuracy of measurement scales. Bannigan and Watson (2009) defined reliability as the stability of a measurement scale (i.e., how far it will give the same results if used on separate occasions). Essentially, "the less variation an instrument produces in repeated measurements of an attribute, the higher its reliability" (Polit & Hungler, 1995, p. 347). Validity is the degree to which a scale measures what it intends to measure. Validity is predicated on reliability but reliability on its own is insufficient because a reliable instrument may lack validity if it does not measure what it is designed to measure (Bannigan & Watson, 2009). Nunally (1967) claimed Cronbach's alpha or the coefficient alpha is the best measure of reliability because most major sources of error are due to sampling of instrument contents.

A variety of studies of leadership styles of FRLT have used MLQ-Form 5X as a measuring instrument (Franklin, 2016; Prassad & Junni, 2016; Ryan & Tipu, 2013; Tajasom et al., 2015; Toor & Ofori, 2009) and have confirmed the reliability and validity

of the instrument. For example, Toor and Ofori (2009) gave the estimated internal reliability coefficients for various subscales under MLQ:

> Transformational leadership (TFL = IA + IB + IM + IS + IC) (20 items, α = 0.92), idealized behaviors (IB) (4 items, α = 0.72), idealized attributes (IA) (4 items, α = 0.72), idealized influence (II = IA + IB) (8 items, α= 0.83), inspirational motivation (IM) (4 items, α = 0.76), intellectual stimulation (IS) (4 items, α = 0.74), individualized consideration (IC) (4 items, α = 0.67); transactional leadership (TSL = CR + MBE-A + MBE-P) (12 items, α = 0.65), contingent reward (CR) (4 items, α = 0.67), management-by-exception/active (MBE-A) (4 items, α = 0.66), management-by-exception/passive (MBE-P) (4 items, α = 0.66); laissez-faire (LF) (4 items, α = 0.65), effectiveness (4 items, α = 0.79), extra effort (3 items, α = 0.71), and satisfaction (2 items, α = 0.79). (p. 58)

Toor and Ofori (2009) conducted their research in Singapore on a sample of 62 senior-level managers in the construction industry. The MLQ-Form 5X was used to measure peers' and subordinates' perceptions of the FRLT model (transformational, transactional, and laissez-faire or passive-avoidant leadership), and employee outcomes (effectiveness, extra effort, and satisfaction). The purpose of the study was to determine the relationship of ethical leadership with the full range leadership model, employee outcomes, and organizational culture.

The instrument for measuring the dependent variable, IP is an eight-item scale developed by Meeus and Oerlemans (2000) for use in their study of firm behavior and innovation performance. Meeus and Oerlemans confirmed that this variable is a mean

score of eight items indicating performance improvements due to product and process innovations. In using the instrument for the present study, managers were asked to judge the performance improvements due to process and product innovations on a Likert-scale with values of 1, *very little* through 5, *very much*. For process as well as product innovations, the items were: contribution of innovation to cost-cutting, increase of turnover, increase of profits, and quality improvement. The highest score could be 5, and the lowest score could be 1.

Tajasom et al. (2015) in their study of the role of transformational leadership in innovation performance of Malaysian small-and-medium-sized enterprises, used MLQ-Form 5X to measure leadership style, and the eight-item instrument (Meeus & Oerlemans, 2000) to measure IP. To validate the instruments, Meeus and Oerlemans (2000) conducted component factor analysis and, in addition, used the Varimax rotation technique to obtain simpler and more interpretable factor solutions. Selected factors were based on eigen values greater than or equal to 1. In the analysis, the cut-off point for a significant loading was chosen at 0.5. They then tested all items in the questionnaires using a criterion of an Eigen value greater than 1 to ensure significant factor loadings. Internal consistency was verified through a reliability analysis using Cronbach's alpha (α). A reliability exceeding 0.80 was considered good, 0.70 acceptable, and less than 0.60 poor. They found that Cronbach's α exceeded 0.70 for all variables in their analysis, indicating enough reliability. The validity and reliability of the instrument were therefore confirmed as good enough for hypothesis testing.

Operationalization of Constructs

Transformational leadership. Transformational leadership (TFL) behavior elevates and broadens followers' goals and motivates them to perform beyond the expectations specified in implicit or explicit exchange agreements. Such leaders employ a collaborative style for making decisions, sharing problems with followers, and seeking consensus before making a final decision. This leadership style is a continuous level variable, as measured by the MLQ.

Transactional leadership. Transactional leadership (TL) behavior focuses on the exchange of resources and fulfilling of terms specified in implicit or explicit exchange agreements between leader and follower. Its basic approach is a clear communication of work tasks and rewards and punishments focusing on the basic needs and desires of followers. This leadership is a continuous level variable, as measured by the MLQ.

Laissez-faire/passive-avoidant leadership. Laissez-fair leadership (PAV) behavior gives rights and powers to followers through their leader, avoids taking decisions, and intertervenes only when standards are not met. Team members are free to decide how they complete their work. This leadership is a continuous level variable, as measured by the MLQ.

Innovation performance. Innovation performance (IP) corresponds to the contribution of innovation to cost-cutting efforts, an increase in turnover, an increase of profits, and quality improvements. Innovation performance is a continuous level variable, as measured by an eight-item scale proposed in Meeus and Oerlemans (2000).

Data Analysis Plan

The research question and hypotheses of this study are as follows:

RQ: How do TFL, TL, and PAV leadership styles, as measured by the Multifactor Leadership Questionnaire (MLQ-Form 5X), relate to IP, as measured by an eight-item scale developed by Meeus and Oerlemans (2000), of SMEs in Nigeria?

$H_0$1**:** There is no statistically significant relationship among TFL, TL, and PAV leadership styles, as measured by the MLQ-Form 5X and IP, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

H_a1: There is a statistically significant relationship among TFL, TL, and PAV leadership styles, as measured by the MLQ-Form 5X and IP, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

$H_0$2: Leadership styles of the FRLT (TFL, TL, and PAV) do not statistically significantly predict IP in SMEs in Nigeria.

H_a2: Leadership styles of the FRLT (TFL, TL, and PAV) statistically significantly predict IP in SMEs in Nigeria.

Preanalytical examination of the data was carried out to check for outliers, and also bearing in mind the probability of common method biases due to the self-reporting nature of the data in the study (Podsakoff, McKenzie, Jeong-Yeon & Podsakoff, 2003).

Data analysis for the study was done using SPSS for Windows. Descriptive statistics about the sample included the mean, and standard deviation, for continuous measurement scaled variables. I used Cronbach's alpha (α) to measure the internal consistency reliability of leadership styles and innovation performance measurements. To

test the hypotheses, I used Pearson's correlation coefficient to ascertain the correlation, if any, between the independent variables and the dependent variable, and the strength and direction of the correlation. I did a hierarchical multiple regression analysis to determine which, or a combination of which, independent variables predict the dependent variable.

The independent variables are the three leadership styles of the full range model viz: Transformational leadership style (TFL); transactional leadership style (TL); laissez-faire leadership style (PAV). The dependent variable is innovation performance (IP). The literature reports that TFL positively correlates with IP (Tajasom et al., 2015). TFL, was therefore be entered into the model selection procedure first before others. The equation of the model was reported, and the regression coefficients were interpreted.

Hypotheses were tested using Pearson's correlation coefficient. Cohen (1988) noted small, medium, and large effect sizes for hypothesis tests using the Pearson correlation coefficient (r) are r = .1, r = .3, and r = .5, respectively. A sample size of 77 produces 80% power to detect an effect size of .15, which is a medium effect size. For example, if the true population correlation between IP and the idealized influence attributed leadership style was .15 or more, the study had an 80% chance of detecting (i.e., achieving statistical significance) the correlation at the .05 level of statistical significance.

I used multiple linear regression analysis to predict the values of the dependent (outcome) variable from the independent (predictor) variables (Field, 2013). Power analysis for multiple linear regression analysis was based on the amount of change in R-squared attributed to the variables of interest. Cohen (1988) noted small, medium, and

large effect sizes for hypothesis tests using R-squared are R-squared = .0196, R-squared = .13, and R-squared = .26, respectively.

Threats to Validity

Validity in scientific research refers to the degree to which an instrument, or a scale, measures the variable that it is designed to measure. Frankfort-Nachmias et al. (2015) noted that because measurement in the social sciences is usually indirect, researchers are never completely certain that they are measuring the variable for which they designed their measurement procedure. For this reason, researchers should find evidence to support the role of the measuring instrument, that it does measure the "variable that it appears to be measuring" (Frankfort-Nachmias et al., 2015, p.131). Supporting evidence usually comes in the form of tests and assessments conducted by the researcher or by others who used the measurements in the past.

In this study I examined the relationship between leadership style and innovation performance in SMEs. The instruments used to measure the independent variables, TFL, TL, and PAV, is the MLQ-Form 5X, and an eight-item scale developed by Meeus and Oerlemans (2000) was used to measure the dependent variable, IP. These measurement instruments have been used in a great number of studies where their construct and discriminant validity have been tested and proved (cf. Dimitrov & Darova, 2016; Tajasom et al., 2015).

Ethical Procedures

The conduct in the past of unethical research in which participants were exposed to risks informed the need for regulation and monitoring of research. The Institutional

Review Board (IRB) is the agency for regulating research to ensure the safety and privacy of human participants. In this study I complied with ethical procedures necessary to obtain approval of the Walden University Institutional Review Board. The procedures are meant to assure that the potential benefits of research outweigh the potential risks to subjects, the researcher, copyright holders of instruments to be used, other stakeholders, and the university itself. Another purpose of the IRB is to assure that research complies with all relevant regulations. In this regard, the Walden University IRB requires that university research projects meet with the following ethical standards:

1. Safety and privacy risks are minimized by using procedures that are consistent with sound research design and do not unnecessarily expose participants to risks.
2. Risks are reasonable in relation to anticipated benefits.
3. Participants are selected equitably so that burdens and benefits of research are fairly distributed.
4. Informed consent will be obtained and documented.
5. Perceived coercion to participate is minimized especially among potentially vulnerable participants.
6. Research is monitored. (Walden University, n.d.)

Ethical Concerns

For a study to be valid, ethical concerns must be taken into consideration. Within the context of benefits versus costs of specific research methodologies, the most prominent problems that give cause for ethical concern are informed consent and privacy

(Frankfort-Nachmias et al., 2015). In this study, the two issues were addressed as follows:

Informed Consent

The principle of informed consent is designed to assure that the rights of participants are protected during data collection. These rights are ensconced in the constitutional rights of freedom and self-determination. Underlying the principle of informed consent is the concept of competence, which presumes that the decision made by a responsible, mature individual who has been given the relevant information is a correct decision. But many people may not be mature and responsible (e.g., minors, comatose medical patients, the legally insane, etc.), and therefore are not competent to give informed consent (Frankfort-Nachmias et al., 2015).

Another underlying principle of informed consent is voluntarism in which the right to participate or not to participate in a research project is exercised. The researcher has a responsibility to explain the conditions of the research as a prerequisite to receiving informed consent to assure that the person involved can "exercise free power of choice, without the intervention of any element of force, fraud, deceit, over-reaching, or other ulterior form of constraint or coercion" (Frankfort-Nachmias et al., 2015, p. 69).

In this study, informed consent measures were applied by giving each participant details about the nature, purpose, and procedures of the study, guarantees about privacy, and how to obtain a copy of the study. The online questionnaire administered by SurveyMonkey® contained the informed consent page that addressed ethical concerns such as anonymity and confidentiality, and the fact that participation was entirely

voluntary and that participants could withdraw at any time. This page was completed by participants before proceeding with the rest of the questionnaire.

Privacy

The use of online survey methodology mitigates many ethical concerns that affect data collection. It assures participant anonymity and addresses other confidentiality issues that may arise. Data collected through SurveyMonkey® is only available at the aggregate level, hence the identities of participants was kept confidential. The advantages of online survey methodology notwithstanding, in this study I complied fully with the requirements of the IRB for ethical data collection. Data was stored in a password-protected flash drive, which is kept in my home office in a secure cabinet. My home is secured with restricted access facilities to address ethical concerns related to data storage.

Summary

The purpose of this study was to examine the relationship, if any, between leadership styles and innovation performance in SMEs in Nigeria. The sample comprised 194 owners and managers of such enterprises in Lagos, the commercial capital of Nigeria. In this chapter I discussed the methodology of the study and the rationale for choosing that method as well as the data collection strategy including procedures for recruiting of participants. I examined instruments used in the study, the MLQ-Form 5X for measuring the independent variables, the eight-item scale for measuring the dependent variable, and their reliability and validity. I discussed the data analysis plan including use of multiple linear regression analysis and the Pearson correlation coefficient tools of statistical analysis, and reviewed threats to the validity of the study. I

also discussed ethical procedures and ethical concerns including IRB procedures to assure ethics in research projects. In the next chapter, after completing the study, I report the results and give relevant interpretations to the outcome of statistical analyses and decided whether the research question has been answered and hypotheses rejected or accepted.

Chapter 4: Results

The purpose of this quantitative correlational survey study was to investigate whether a statistically significant relationship exists between TFL, TL, and PAV leadership styles and IP within SMEs. The study provided insight into the role of innovation in the survival and competitiveness of SMEs and the effect of leadership style in stimulating innovation. In this chapter I examined the following research question:

RQ: How do TFL, TL, and PAV leadership styles, as measured by the Multifactor Leadership Questionnaire (MLQ-Form 5X), relate to IP, as measured by an eight-item scale developed by Meeus and Oerlemans (2000), of SMEs in Nigeria?

The hypotheses related to the research question are:

$H_0$1: There is no statistically significant relationship between leadership styles (TFL, TL, and PAV) and IP in SMEs.

H_a1: There are statistically significant relationships between leadership styles (TFL, TL, and PAV) and IP in SMEs.

$H_0$2: Leadership styles of the FRLT (TFL, TL, and PAV) do not statistically significantly predict IP in SMEs.

H_a2: Leadership styles of the FRLT (TFL, TL, and PAV) statistically significantly predict IP in SMEs.

I used SPSS 25 for Windows to process the data after screening it for outliers and for completion. I presented descriptive statistics for continuous variables followed by an analysis of reliability. I conducted statistical analysis to answer the research questions using Pearson correlation and multiple linear regression. The next step was to present the

results of the descriptive statistics as they relate to the sample, followed by a report of the findings of the statistical analysis organized according to research question and hypotheses. I performed an evaluation of statistical assumptions appropriate to the study.

Data Collection

I collected data for this study over a period of eight weeks. The sample consisted of leaders of small-to-medium-scale enterprises (SMEs) that had attended programs of the Enterprise Development Centre (EDC) in Lagos. I obtained permission from EDC to recruit participants from the data base of those leaders of small-to-medium scale enterprises who have attended their programs. This database contained about 6000 persons. Following Walden University Institutional Review Board (IRB) approval (Approval No. 02-10-20-0418249), I requested EDC to write a cover in addition to my consent letter introducing the study to the prospective participants and to send the survey instruments, the MLQ 5X and the Innovation Performance Questionnaire (IPQ), through SurveyMonkey®. The survey was open on SurveyMonkey® over the eight-week period.

Using the MLQ Form 5X which measured the full-range leadership model, the participants rated their style of leadership. The full-range leadership model comprised of transformational leadership (TFL), transactional leadership (TL), and passive-avoidant leadership (PAV). Participants rated their transformational leadership practices by rating how their behaviors towards subordinates tended to reflect these five attributes: idealized influence (attributional), idealized influence (behavioral), inspirational motivation, intellectual stimulation, and individualized consideration. My evaluation of leadership looked at how the leaders exhibited charismatic behaviors and social, caring, coaching

and mentoring relationships with their subordinates. Participants rated their transactional leadership practices as to whether they tended towards the attributes of contingent reward and management-by-exception-active behaviors. This evaluation involved how the leaders kept faith with and clarified expectations of reward for performance, and the non-obstructive supervision of subordinates. Participants rated their passive-avoidant leadership behaviors considering whether the behaviors tended towards non-transactional laissez-faire and management-by-exception-passive.

Participants also rated their innovative tendencies by answering eight questions in the Innovation Performance (IP) scale targeted at identifying whether, or not, they applied innovative approaches in running their enterprises. The participants also rated the role of innovation in improving the bottom-line in their businesses. Innovative approaches included both technical and market-based innovations such as product and process innovations as well market positioning and customer focused innovations.

I received an automated email notification from SurveyMonkey® whenever a survey response was submitted. Next, I logged into a password protected computer to view on my password protected SurveyMonkey® site to view the response and to code the surveys that had been submitted. The received responses did not contain any participant identification hence the coded data was entered directly into an exportable file on the password protected computer preparatory to scoring. Scoring was done using the instructions given in the manual of MLQ 5X Short 3rd edition (Avolio, et al. 2004)

At the end of data collection 182 responses were received via SurveyMonkey®. Twenty-four surveys (10.4%) were eliminated due to incompleteness or for failing to

meet other criteria for inclusion in the study. The number of valid surveys was thus 158 which is above the minimum power calculated sample size of 154. The survey response rate, when measured against the targeted 194 responses, was 84% which is well above the average data collection rate for management and behavioral science research which is between 32% and 50% (Baruch & Holton, 2008).

Screening of Data

I removed two responses for indicating that they were not leaders of small-to-medium-scale enterprises and an additional 22 for incomplete surveys. I examined the data for outliers by calculating z-scores or standardized values. Standardized values highlight the standard deviations that a data point lies from the average. Data points that lie outside the range of z = +/-3.29 standard deviations away from the mean are considered as outlying responses and should be removed from further analysis (Tabachnick and Fidell, 2012). I identified no outlying responses. A total of 158 responses was found finally suitable for further analysis.

Study Results

Descriptive Statistics of Continuous Variables

I computed composite scores for the scales by taking the averages of the survey items in the MLQ and IP. Accordingly, the scores for transformational leadership style were arrived at by obtaining an average of 20 items with possible scores on a range of 1 to 5. For transactional leadership style I used a factor of 8 items to compute the average scores with possible scores on a range of 1 to 5. I computed the average scores of

passive-avoidant leadership style by using a factor of 8 items with possible scores that ranged from 1 to 5. Lower scores on the relevant leadership scale indicated that the participant exhibited less of that leadership style and higher scores indicated that the participant exhibited more of that leadership style.

I divided the scores by 8, being the number of items on the IP scale, to obtain the average scores for innovation performance with possible scores ranging from 1 to 5 on the scale. Higher scores on the scale indicated that the participant was more inclined towards innovation. Lower scores indicated less inclination towards innovation. In this study I explored the relationship between leadership style and innovation performance in SMEs.

I exported the resultant scored data into an SPSS 25 data file for further analysis. Table 5 shows the descriptive statistics for continuous variables.

Table 5

Means and Standard Deviations for Continuous Variables

Continuous variables	**N**	**Min**	**Max**	**Mean**	**SD**
Transformational Leadership	158	2.00	5.00	4.30	.51
Transactional Leadership	158	1.88	5.00	3.70	.64
Passive-Avoidant Leadership	158	1.00	5.00	1.59	.49

Reliability Analysis

In psychometrics, the term reliability (or consistency) refers to the stability of a measurement scale: how far will it give the same results on separate occasions (Bannigan

& Watson, 2009)? The Cronbach's alpha α (or coefficient alpha) is the best estimate of reliability because most major sources of error are due to the sampling of instrument contents (Nunally, 1967; McDowell & Newell, 1996). I therefore used the Cronbach's alpha to conduct a test of the reliability and internal consistency of the measurement scales of the leadership and innovation performance variables (transformational leadership, transactional leadership, passive-avoidant leadership, and innovation performance). I interpreted α scores using an incremental method in which $\alpha \geq .9$ is excellent, $.9 > \alpha \geq .8$ is good, $.8 > \alpha \geq .7$, is acceptable, $.7 > \alpha \geq .6$, is questionable, $.6 > \alpha \geq .5$, is poor, and $\alpha \leq .5$ is not acceptable (George & Mallory, 2010). Table 6 shows the scores.

The Cronbach's alpha score for transformational leadership was .85 which is good, and transactional leadership was .65 which is questionable. Passive avoidant leadership had an alpha of .56 which is poor. Overall leadership style, however, had an alpha of .83 which indicates that the MLQ 5X is a good, reliable scale for measuring leadership style (Table 6). In this study, the focus was on the three leadership styles of the FRLT. The overall α scores of the three styles were satisfactory. The lower reliability estimates obtained for the subscales IC, CR, and MBEP impacted the overall results by confirming the results of the correlation coefficient test. The test indicated that CH (IIA+IIB+IM) $\alpha = .81$, or charisma, was the only factor of transformational leadership style that is statistically significantly correlated with innovation performance in SMEs.

Table 6

Cronbach's Alpha α Statistics for MLQ 5X Scales and Subscales

MLQ 5X Scales/Subscales	No. of Items	Cronbach's Alpha
TFL	20	.85
IIA	4	.52
IIB	4	.67
IM	4	.65
IS	4	.59
IC	4	.36
TL	8	.65
CR	4	.39
MBEA	4	.73
PAV	8	.56
MBEP	4	.37
LF	4	.48
Leadership Style Overall	36	.83

Toor and Ofori (2009) using MLQ 5X found similar reliability estimates for transformational (α = .92), transactional (α = .65), and passive-avoidant (α = .65) leadership styles in their study of leadership and ethics in a Singaporean construction firm. A comparison of the reliability estimates of their study with this study's is in Table 7.

Table 7

Study Alpha in Comparison with Published Alpha

MLQ 5XScales/subscales	No of items	Toor & Ofori (2009)	Study Alpha
TFL (IA+IB+IM+IS+IC)	20	.92	.85
IA	4	.72	.52
IB	4	.72	.67
IM	4	.76	.65
IS	4	.74	.59
IC	4	.67	.36
TL (CR+MBEA)	8	.65	.65
CR	4	.67	.39
MBEA	4	.66	.73
PAV (MBEP+LF)	8	.65	.56
MBEP	4	.66	.37
LF	4	.65	.48

The innovation performance scale (IP) had an alpha of .96 indicating that it is an excellently reliable scale for measuring innovation performance (see Table 8)

Table 8

Cronbach's Alpha α Statistics for IP Scale

IP Scale	No. of Items	Cronbach's alpha
IP	8	.96

Data Analysis and Hypothesis Testing

The research question and hypotheses of this study are:

Research question: How do TFL, TL, and PAV leadership styles, as measured by the Multifactor Leadership Questionnaire (MLQ-Form 5X), relate to IP, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria?

$H_0$1**:** There is no statistically significant relationship among TFL, TL, and PAV leadership styles, as measured by the MLQ-Form 5X and IP, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

H_a1: There is a statistically significant relationship among TFL, TL, and PAV leadership styles, as measured by the MLQ-Form 5X and IP, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

$H_0$2: Leadership styles of the FRLT (TFL, TL, and PAV) do not statistically significantly predict IP in SMEs.

H_a2: Leadership styles of the FRLT (TFL, TL, and PAV) statistically significantly predict IP in SMEs.

Evaluation of Statistical Assumptions

I used correlation and regression analyses to evaluate the linear relationship between the variables to ascertain if there is a positive or negative relationship. I also sought to indicate from the analyses the strength of the correlation between the variables. Being a parametric test there are three assumptions for the analysis. First, it was assumed that the variables would be normally distributed; second, that they would be independent of each other (multicolinearity); and third, they would be linearly related to each other (homoscedasticity/linearity)

Several measurements are possible when calculating a correlation coefficient. The coefficient measures or values lie between – 1 and + 1. A measure of 1 indicates a perfect positive correlation between two variables whereas a measure of -1 indicates a perfect negative correlation. A coefficient of 0 implies that the two variables do not have a linear relationship at all (Field, 2013). A coefficient of between ± 0.75 and ± 1 will be regarded as a strong correlation. A coefficient of between ± 0.25 and ± 0.75 depicts a moderate correlation, whereas a coefficient of between ± 0.25 and 0 depicts a low correlation. In testing the hypotheses, significance values (p) were used to reject or accept the null hypothesis. The null hypothesis was accepted if $p \geq .05$ and rejected if $p \leq .05$. I used the significance test for Pearson correlation coefficient to test the hypothesis. The Pearson correlation coefficient (r) assesses that quantitative variables are linearly related in a sample (Green & Salkind, 2014). I also conducted a multiple regression analysis to assess the predictive relationship between the independent variable and the dependent variable. To conduct these tests, I first examined whether the data met the assumptions underlying

the two tests. The first is assumption of normality, followed by assumptions of homoscedasticity, multicolinearity, and independence.

Normality: I tested for the normality of the variables by producing a P-P Plot. The assumption that the variables are normally distributed was met because the points were close to the normality trend line (Howell, 2010).

Homoscedasticity test: I used a scatter plot to test for homoscedasticity. The plot indicates there is no clear pattern emerging from the data thus confirming that this assumption was met. The points resembled a rectangular distribution (Stevens, 2009).

Absence of Multicolinearity: The assumption of the absence of multicolinearity was proved when I examined the VIFs in the regression analysis output. The VIFs were less than 10 which confirmed that the assumption was met (Stevens, 2009).

Assumption of Independence: I tested the assumption of independence between the variables by using the Durbin-Watson test. The test revealed that the measure obtained was within the range of 0 to 4 (Field, 2013) thus indicating that this assumption was met.

Assumption of Linearity - This assumption demands that the relationship in the regression model is linear and as such the mean values of the response variable are expected to lie on a straight line for each increase in the predictor variable (Field, 2013). I used matrix scatter plots to show that the responses for each of the variables are scattered around a straight line thus confirming that the assumption of linearity was met.

Pearson Correlation Coefficient

I used Pearson product moment correlation coefficient to test the hypotheses.

$H_0$1 - There is no statistically significant relationship among TFL, TL, and PAV leadership styles, as measured by the MLQ-Form 5X and IP, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

H_a1: There is a statistically significant relationship among TFL, TL, and PAV leadership styles, as measured by the MLQ-Form 5X and IP, as measured by an eight-item scale developed by Meeus and Oerlemans, of SMEs in Nigeria.

$H_0$2: Leadership styles of the FRLT (TFL, TL, and PAV) do not statistically significantly predict IP in SMEs.

H_a2: Leadership styles of the FRLT (TFL, TL, and PAV) statistically significantly predict IP in SMEs.

Table 9 shows correlations among the three leadership styles of the full range leadership theory (FRLT) and IP in SMEs. There was a significant positive relationship between TFL and TL, (r = .51, 95% CI, p = .000). There was a significant positive relationship between TFL and IP (r = .18, 95% CI [.098, 1.005] p = .020). There was also a statistically significant positive relationship between TL and PAV (r = .17, 95% CI, p = .034). TFL and PAV are not significantly correlated, (r = -.03, 95% CI, p = .739) TL and IP are not significantly correlated (r = .07, 95% CI [-.490, .235] p = .375). PAV and IP are not significantly correlated (r = .12, 95% CI [-.058, .752] p = .138).

Table 9

Correlations among Leadership Styles and IP

	TFL	TL	PAV
TFL			
TL	.51**		
PAV	-.03	.17*	
IP	.18*	.07	.12

***p*<.01, **p*<.05

The overall model results show that at least one leadership style of the FRLT is statistically significantly related with innovation performance (IP) in SMEs. I therefore reject the null hypothesis. However, the null hypothesis is accepted with respect to TL and IP because in this model there is no statistically significant relationship between the two variables. The null hypothesis is equally accepted with respect to PAV and IP because in this model there is no statistically significant relationship between the two variables.

The Pearson correlation coefficient is an index of effect size. "As with all effect size indices, there is no good answer to the question, 'what value indicates a strong relationship between two variables?' (Green and Salkind, 2014, p.233). In the behavioral sciences, however, in studies using Pearson correlation coefficient, an effect size is small if r =.1, medium if r = .3, and larger if r = .5 (Cohen, 1988). The statistically significant relationship (r = .18, 95% CI [.098, 1.005] p = .020) between TFL and IP produced a medium effect size.

Multiple Linear Regression

A multiple linear regression analysis was conducted to predict IP in SMEs based on TFL, TL and PAV leadership styles. The results of the multiple regression analysis (Table 10) were significant $F(3, 154) = 2.832$, $p = .040$ with an R^2 of .052 suggesting that leadership style accounted for approximately 5.2 percent of the variance in innovation performance of SMEs in Nigeria. The implication of this result is that the model predicts less than 6 percent of variation in innovation performance, hence more than 94 percent of the variation is due to other factors. Transformational leadership style ($B = .22$, $t = 2.40$, $p < .05$), was the only variable in the model that had a significant relationship with innovation performance suggesting that a one unit increase in transformational leadership produces a .22 increase in innovation performance. Transactional leadership style and passive-avoidant leadership style did not have a significant relationship with innovation performance.

The predictive model of the regression is expressed as:

$$\hat{Y} = .012 + .221Xi$$

Table 10

Multiple Linear Regression with Leadership Styles Predicting IP

Source	***β***	**SE**	**B**	**T**	**P**
TFL	.221	.230	.552	2.403	.017
TL	-.065	.183	-.128	.698	.486
PAV	.136	.205	.346	1.688	.094

Note: $F(3, 154) = 2.832$, $p < .040$, $R^2 = .052$

The literature (Tajasom et al, 2015; Ryan & Tipu, 2013; Jung, et al, 2003) had indicated that TFL is significantly correlated with IP. I therefore conducted a hierarchical regression analysis inputting TFL first and controlling for TL and PAV (Table 11). The result indicated that transformational leadership ($t = 2.344$, $p = .020$) predicted 3.4 percent of the variance in innovation performance in SMEs. Of the nine subscales of FRLT, only Idealized Influence Attributional (IIA) had a significant relationship with IP. This implies that the more charismatic a leader is perceived to be the more he influences innovation in his business. I shall discuss this further in the next chapter.

Table 11

Model Summary of Regression Statistics

Model	R	R^2	Adj R^2	Std Err	F	Sig F
1	.184	.034	.028	1.25095	5.594	.020
2	.229	.052	.034	1.24709	1.484	.230

Model 1: hierarchical with TFL as first input.

Model 2: TL and PAV as next input.

Summary

In this study the prediction was that the leadership styles of FRLT are statistically significantly correlated with innovation performance (IP) in small-to-medium-scale-enterprises in Nigeria. The participants numbering 158 were leaders of SMEs who are responsible for policy and decision making in their enterprises. After obtaining Walden IRB approval for the study an online survey was delivered to the participants through SurveyMonkey® and responses were also collated through SurveyMonkey®. The survey instruments were the multi factor leadership questionnaire (MLQ 5X) and the innovation performance scale (IPS).

In this chapter, I presented the results of data collection, data screening, and detailed analysis of data. I conducted Pearson correlation coefficient to test the existence and direction of the relationship between leadership styles and innovation performance (IP), and multiple linear regression analysis to assess the predictive value of the relationship. The results indicated that overall there is a statistically significant positive

correlation between leadership styles and innovation performance. I therefore rejected the null hypothesis. The result of the regression analysis indicated that, taken individually, TFL was significantly correlated with IP but TL and PAV were not significantly correlated with IP. The strength of the correlation between TFL and IP was found to be quite weak given that the Pearson correlation coefficient between TFL and IP was .18 out of a possible ± 1. The regression result indicated that leadership style predicts only 5.2% of the variance in IP which implies that >94% of the variation in IP cannot be explained by changes in leadership style. In the next chapter I discuss in detail the interpretation of the findings, limitations of the study, recommendations, implications, and conclusions.

Chapter 5: Discussion, Conclusion and Recommendation

The purpose of this nonexperimental, cross-sectional, correlational study was to examine the relationship between leadership styles of the full range leadership theory (transformational, transactional, laissez-faire/passive-avoidant) with innovation performance in SMEs in Nigeria. It was observed that Nigerian enterprises were laggards in innovation in comparison with enterprises in countries at same level of economic development (Cornell University, et al. 2015). The role of transformational, transactional, and passive-avoidant leadership styles in innovation performance in Nigerian SMEs was uncertain (Uchenwamgbe, 2013; Obiwuru, et al, 2015; Ejerem & Abasilim, 2014). The purpose of the study was to close the gap in knowledge by exploring the effect of leadership styles on innovation performance in SMEs.

Key findings of the study are that leadership styles of the FRLT as measured by MLQ 5X are statistically significantly positively correlated with innovation performance as measured by IP scale, developed by Meeus and Oerlemann, in SMEs in Nigeria. When leadership style was considered individually, transformational leadership style was found to be significantly correlated with innovation performance, but transactional and passive-avoidant leadership styles were not. Leadership style predicted only 5.2% variance in innovation performance. A unit change in leadership style produced a .22-unit change in innovation performance.

Interpretation of Findings

It is worthwhile to briefly re-evaluate the variables of this study prior to relating the findings to what has been found in the literature. The predictor variables are transformational, transactional, and passive-avoidant leadership styles. These constitute the typology of leadership styles of the FRLT. The criterion variable is innovation performance.

Transformational leadership motivates followers to perform beyond expectations specified in implicit or explicit agreements (Bass & Avolio, 2004). Transformational leaders create a vision of the future for the organization, improve follower's self-confidence, help them realize their potential, communicate an achievable vision, identify their personal needs, work with them to satisfy those needs, and motivate them to achieve the collective vision of the organization (İşcan et al. 2014). It is a leadership style that motivates followers to shift focus from the self to the group thus heightening awareness of the collective interest of the group, the pursuit of that interest, culminating in the upliftment of the group (Garcia-Morales et al. 2012). Transformational leadership style, in contrast to other leadership styles targets change and innovation (Howell & Avolio, 1993). This is because it is a leadership style that encourages followers to think of problems in new ways, to question assumptions, and to "think outside the box" (Jing & Avery, 2016). Dimensions of transformational leadership are: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

Transactional leadership expects followers to perform according to expectations contained in implicit and explicit agreements (Bass & Avolio, 2004). It is a leadership

style in which the relationship between a leader and his followers consists of a series of gratifications aimed at satisfying organizational and personal goals and reward is contingent on attainment of agreed performance targets (Burns, 1978; Judge & Piccolo, 2004; Jing & Avery, 2016). Transactional contingent reward makes clear the specific role and tasks required of subordinates, sets criteria for measuring performance, and rewards effort spent performing roles and tasks and for achieving set goals (Ryan & Tipu, 2013; Xenikou, 2017). Bass et al. 2003 indicated a positive correlation between transactional leadership and employee performance. Dimensions of transactional leadership are: contingent reward, and management-by-exception (active). Management-by-exception (active) was found to be instrumental to innovation propensity in Pakistani SMEs (Ryan & Tipu, 2013).

Passive-avoidant/laissez-faire leadership has been described as non-leadership, a "hands off" approach, and as avoidant (Judge & Piccolo, 2004; Barbuto, 2005; Van et al., 2014). This style is also called non-transactional laissez-faire in which a leader does not enter into agreements with followers and neither specifies paths to achieving desired goals and objectives (Avolio & Bass, 1994). Such a leader leaves followers to their own devices. A passive-avoidant leader does not motivate followers to exceed their potentials in working to achieve organizational and personal goals. It was found, however, that this leadership style could engender serendipity in highly skilled followers since they are able to work with minimum supervision thus creating a pathway to innovation (Anderson, 2016). For such a situation to arise there must be some form of coordination in place to ensure realization of organizational goals.

Innovation performance, the criterion variable, is a measure of the contribution of product and process innovations to an enterprise's economic performance (Meeus & Oerlemann, 2000; Tajasom et al. 2015). In big firms with R&D facilities innovation performance is measured by the number of patents but in SMEs it is measured by the number of new products and services that the firm introduced or adapted to suit the needs of its customers. In this study participants were asked to rate the role of new products and services in their market performance.

As earlier stated, the results of this study indicated that transformational, transactional, and passive-avoidant leadership styles taken together are significantly positively correlated with innovation performance in SMEs in Nigeria. This means that leaders of SMEs apply a combination of leadership styles in steering the affairs of their organizations. In the literature reviewed in Chapter 2 there is confirmation that not one leadership style is exclusively applied in successfully running an organization though some styles predominate under certain conditions. Bass (1997) said that the best leaders are both transformational and transactional. Jansen et al. (2009) found that in situations of environmental dynamism transformational leadership is related to exploratory innovation. Conversely, under a situation of environmental stability, transactional leadership is related to exploitative innovation. Ryan and Tipu (2013) found that transformational and transactional leadership styles were correlated with innovation propensity among SMEs in Pakistan. The finding of this study to the effect that leadership styles of FRLT are significantly positively correlated with innovation performance is thus supported by literature.

The results of the study also indicated that, taken separately, only one of the predictor variables, transformational leadership was significantly correlated with innovation performance. The other predictors, transactional, and passive-avoidant leadership were not significantly correlated with innovation performance. As earlier stated literature is replete with confirmation of this finding. Transformational leadership style was found, over and above transactional leadership, to be more conducive to creativity and innovation (Howell & Avolio, 1993). Tajasom et al. (2015) found that transformational leadership was positively correlated to innovation performance in SMEs in Malaysia. Jing and Avery (2016) concluded that transformational leadership style encourages followers to think of problems in new ways, question assumptions, "think outside the box", and explore new possibilities. Leaders of SMEs in Nigeria do motivate their subordinates to perform beyond expectations, to shift focus from exclusive self-interest to the interest of the group knowing that the survival of the group will be to their ultimate benefit. Innovation is a critical factor for firm survival (Cefis & Marsili, 2006). The leaders achieve this transformation in their subordinates by developing a relationship of trust and confidence with them; by creating a vision of the future and demonstrating the role of subordinates in that vision; identifying their personal needs and working with them to fulfil the needs; and leading by example.

The result of the multiple regression analysis indicated that 5.2% of the variance in innovation performance is explained by leadership style. This result could mean either that there are other major factors at play that influence innovation in SMEs, or that the respondents in this study did not consider innovation performance a significant factor in

the successful running of their enterprises. The major factors inhibiting economic performance, and innovation performance as a contributor to profits, of SMEs in Nigeria as highlighted by Akuru & Okoro (2014) are environmental factors that comprise weak and decadent social infrastructure in the form of epileptic and irregular public power supply, lack of good roads or other means of transportation, shortage of potable water, and inadequate government support. Others factors are internal manifesting in leadership and management incompetence, resulting in a lack of focus and inability to source relevant resources (Okpara, 2011). These challenges weigh more heavily on the innovation performance of SMEs than leadership style. It is probable that the respondents considered these challenges to be more relevant than leadership style to the success of their enterprises.

The multiple regression analysis also indicated that transformational leadership predicted 3.4% of the variance in innovation performance of SMEs. The interpretation of this result is that a combination of the three styles produced a higher prediction (5.2%) even when two of the styles (transactional, and passive-avoidant) were not statistically significantly correlated with innovation performance. This result confirms that leaders of SMEs employed a variety of leadership styles in their businesses and that this practice benefitted the organizations in terms of innovation performance. Much of the literature posit a negative relationship between passive-avoidant leadership and organizational performance (Judge & Piccolo, 2004; Chaimongkonrojna & Steane, 2015; Jing & Avery, 2016). In this study however there was no negative relationship between passive-avoidant leadership style and innovation performance. A probable explanation is that a good

number of the SMEs in the sample are in information technology (IT) where employees are generally highly skilled. Anderson (2016) stated that because passive-avoidant leadership style connotes little managerial supervision it is suitable for highly skilled employees who prefer a measure of freedom to practice their skills. In terms of innovation, such freedom can engender serendipity which precedes creativity and innovation.

Further analysis of the Pearson correlation coefficient revealed that of the nine dimensions/subscales of the FRLT only IIA was significantly positively correlated to IP. This finding diverges from the literature where Tajasom et al. 2015 found II (A&B), IS, and IC to be significantly positively correlated with IP. Ray and Tipu (2013) also found II (A&B), IS, IC, IM, and CR to be significantly positively correlated with innovation propensity. This finding of the present study indicates that charisma (II) is a motivator of innovation in Nigerian SMEs. It implies that if leaders of Nigerian SMEs can develop more intellectual stimulation (IS), inspirational motivation (IM), and individualized consideration (IC), in addition to charisma (II) in dealing with subordinates much more innovation performance will result.

Multiple regression analysis also indicated that 1-unit change in leadership style will produce .22 unit change in innovation performance. Thus, positive changes in the dimensions of leadership style will produces positive changes in innovation performance. SMEs generally do not have rigid hierarchical structures and informal relationships are commonplace hence the leaders are close to their subordinates. This means that changes in leadership style create immediate impact. Change of leadership style that increases

intellectual stimulation of subordinates will have a corresponding positive impact on innovation performance. Intellectual stimulation promotes information search that involves attending conferences, seminars, liaison with suppliers, manufacturers, trade and professional associations, and with customers that facilitates generation of ideas that could lead to innovation (Abereijo et al., 2009; Chesebrough, 2003). This method of information search is the way Nigerian SMEs approach innovation - bearing in mind the near absence of R&D facilities (Abereijo et al., 2009).

The results of this study generally indicated there is much room for improvement in applying leadership styles that are beneficial to innovation performance in Nigerian SMEs. If all the dimensions of transformational leadership style, for example, were to be adopted in due proportions it is probable that innovation performance would improve significantly. Leadership style can be improved or changed through training and development (Bohinc, Reams, & Claydon, 2020). The results showed that the three leadership styles of FRLT taken together are correlated with innovation performance hence it is probable that improvement through training in knowledge, skills and the application of these styles in appropriate situations will enhance innovation performance in SMEs.

Limitations of the Study

As I discussed in Chapter 1 the generalizability of the results of this study is subject to limitations related to the sample, the variables, the methodology and the instruments used to collect data. The sample was taken from leaders who are responsible

for steering the affairs of their SMEs towards achieving commonly accepted visions and agreed goals. The SMEs were engaged in ICT and, or, manufacturing, in Lagos, which is the commercial capital of Nigeria, a developing country in West Africa. While the sample is representative of the SME sector of the Nigerian economy that is engaged in measurable innovative activities, I cannot guarantee the generalizability of the results of the study to other sectors or countries. This is because the characteristics of the participants and the socio-economic environment they face may not be replicated in other sectors, geographic regions, and operating environments.

The methodology of the study was quantitative, correlational, and cross-sectional. The results reflect the situation at a certain point in time based on responses received from respondents. A longitudinal study would have enabled trends and shifts to be detected if present, and they could very well have been, since the surveyed SMEs are going concerns. It would, for example, have been possible to assess the leadership styles that the leaders of sampled enterprises adopted at different stages of growth, or, when facing dynamic as opposed to stable environments.

The instruments used to collect data for the study are the MLQ and IP scale and both combined had 54 questions in total. As stated in Chapter 1, the relatively high number of questions could have affected the diligence with which some participants answered the questions, though they were given ample time to complete the questionnaire. The participants might not have had the opportunity to raise or discuss issues of concern to them because the questions in the questionnaire were predetermined.

A qualitative design would have afforded this opportunity but that would have extended the scope of the study beyond the time available for it.

The reliability estimates which I computed for the variables and the measuring instruments were comparable to those in published studies for the main predictor variables transformational, transactional, and passive-avoidant leadership styles and, for the criterion variable, innovation performance. However, the estimates differed significantly for the subscales of the predictor variables. This could be explained by the fact that my data was not the same as that in the published studies to which comparison was made. I could not determine whether this discrepancy attenuated the correlations. I decided to accept the results because my hypotheses were based on the three leadership styles as predictor variables and not on the subscales per se.

Recommendations

The findings of this study indicated that the leadership styles of the FRLT when taken together correlate with innovation performance in Nigerian SMEs. Individually, only TFL significantly correlates with and predicts innovation performance. The focus of transformational leaders is on change of outdated or dysfunctional elements in the organization by stimulating creativity and innovation among followers (Xenikou (2017). In general, leadership sets the tone for enterprise-level improvement in innovation and creativity (Cook, 2016). There is a realization of the critical role of innovation in ensuring SME survival (Jia et al. 2018). Considering the role of SMEs in economic development of countries, the survival of the enterprises is of paramount importance.

Any research that contributes to knowledge in SME growth and development is very welcome. This study fulfils this objective. However, in the light of the limitations of the study described in the last section I recommend further research that will enhance the findings or make new findings that will improve understanding of the relationship between leadership styles and innovation in SMEs. My recommendation for further research are in relation to choice of sample, data collection, method and methodology, and theoretical foundation.

At the commencement of this study the SME database in Nigeria was being updated by SMEDAN. A sample obtained from the updated database (when it becomes available) might be more representative. A larger sample size and a wider geographic distribution might be obtainable, and this may lead to improved results. Data Collection instruments used in this study are self-rating. Self-ratings suffer from response bias. Literature holds that leaders tend to rate themselves more transformational or transactional than when rated by subordinates (Andrews, Robinson, Celano, & Hallaron, 2012; Bormann & Abrahamson, 2014). A non-self-rating instrument might produce slightly different results.

A qualitative method would enable the researcher gain insight into the participants' understanding of the variables and hence to determine whether that understanding aligns with the purpose of the study. However, the sample size could be a limitation to the practicability of this method. In terms of methodology, a longitudinal study could establish trends and shifts in results, and the nuances of operating in different environments - dynamic or stable.

The theoretical foundations of this study are the full range leadership theory (FRLT) and the organizational learning theory. The FRLT is one of the neo-charismatic leadership theories and is comprised of transformational, transactional, and laissez-faire leadership constructs (Dinh et al. 2014). Other leadership theories, for example trait theory of leadership, abound. It would be of interest to explore other theoretical foundations in leadership studies and assess how they correlate with innovation performance. This study also focused on organizational learning as it relates to exploratory and exploitative learning leading to exploratory and exploitative innovation. In the present study innovation performance relates to exploratory and exploitative innovation. Further research may examine the effect of leadership on exploratory innovation as sole dependent variable or exploitative innovation as sole dependent variable. It can further be researched how SME leadership adapt their organizations to cope with rapid technological change such that the enterprises are not left behind and become atrophied as a result.

Implications

This study of the relationship between leadership style and innovation performance in SMEs in Nigeria is important for several reasons. First, it has contributed to the discussion about the relationship between leadership styles and organizational outcomes in Nigerian enterprises by examining the topic from the perspective of innovation performance within SMEs. Second, the study provided an understanding of the role of leadership style in promoting innovation within small businesses in Nigeria

and contributed to existing knowledge about leadership and sustainable development in Nigeria (Agbiji & Swart, 2015). Third, the professional practice of small business management would benefit from the study as the results have created an awareness of the relationship between leadership styles and innovation performance in SMEs. Leaders of such businesses could be trained and aided to be conscious of this relationship and to leverage the knowledge to stimulate innovation in their firms. The findings of the study contributed to positive social change by providing an understanding of leadership styles and their influence on innovation within small businesses in Nigeria. Such findings might make the enterprises respond accordingly and be more competitive, survive, grow, create jobs, and prosper

Implications for Theory

This study helped fill the gap in the literature about the relationship between leadership style and organizational performance in SMEs in Nigeria. It did this by examining the topic with a focus on innovation performance as a specific component of organizational performance, thus enhancing the current literature that focused on organizational performance in general. The depth of analysis revealed the relative importance of innovation performance as a fulcrum of effective organizational performance. The study created awareness of how existing theories apply to the leadership of SMEs in Nigeria in their effort to ensure the survival of their firms through innovation. The study might have also stimulated interest among management scholars in examining the relationship between leadership style and each of the other components of

organizational performance as single topics in their own right. The study might also have elicited inquiry as to whether the full range leadership theory (FRLT), which was developed in a Western cultural context, is fully or partially applicable in a developing country in Africa.

Implications for Practice

This study may have improved the contribution of SMEs to economic growth and development, the practice of small business management, and to positive social change in three ways:

1. The attention of leaders of small businesses might have been redirected to the importance of innovation for the survival of their enterprises. Emphasis on short-term financial performance is detrimental to the long-term health of the firm whereas innovation performance, even if the results tarry in coming, will guarantee long term survival. Since the results of this study indicated the leadership style(s) that are significantly related to innovation within SMEs, practitioners are encouraged to incorporate training on such leadership behaviors in leadership development programs. By so doing, practitioners might end up introducing a culture of leadership for innovation in the small business sector of the economy.
2. The practice of small business management is the ultimate beneficiary because it becomes exposed to knowledge about leadership styles and their impact on innovation performance of SMEs. This knowledge adds to the

repertoire of skills of practitioners as well as the knowledge base of the industry.

3. Providers of credit to small businesses might have received an additional line of comfort knowing that with improved innovation performance their clients will likely outlive the current general life span of similar enterprises, 5 years after opening for business, which might open up opportunities for higher credit availability consequent upon reduced risk profile for SMEs.

Positive Social Change

In Nigeria, SMEs generate 84% of total employment and contribute 48% of GDP (NBS, 2013), underscoring their importance to economic growth and development.This study, by focusing on that segment of the economy, contributed to positive social change by highlighting leadership style that stimulates innovation to enable the enterprises in the sector to survive, grow, and compete effectively in the modern economy. Details of the contribution to positive social change were considered under the following three factors: First, more jobs might be created if the enterprises survive and grow and attendant socio-economic benefits such as income redistribution, youth engagement, crime reduction, a satisfied polity, and happy families, will flow from it. Second, society will benefit because more resources will become available for solving social problems. This is because the productive economic base of society will be expanded as SMEs become more innovative by virtue of adopting effective leadership styles. In a society like Nigeria, where the extended family system is cultural, more jobs will help provide

improved social security. Third, individuals may benefit from improved job security, which in turn will engender enhanced loyalty and trust in management from employees. In having job security, improved skill acquisition can result and a rise in productivity might be witnessed. Overall, sustainable economic development, which is sorely needed in Nigeria (Agbiji & Swart, 2015), may become obtainable.

SME policy in Nigeria will benefit if some attention is paid to innovation within the sector. At the moment the focus appears to be more on profitability and econmic survival of SMEs and the provision of infrastructural support. These areas are important but it must be realized that profitability measures short term performance whereas innovation ensures long term survival.

Conclusions

This study began by referring to the Global Innovation Index Report (2015) which rated Nigeria as a laggard in innovation inputs and outputs when compared to countries at the same or similar stage of economic development. It was wondered whether this could be the reason for the high rate of attrition of SMEs. It was suspected as a premise to this study that leadership style could be a factor at play in this unsatisfactory situation. The results of the study indicated that leadership style is significantly correlated with innovation performance in SMEs. Transformational leadership style was found to be positively correlated and predicts innovation performance in SMEs. To improve innovation in Nigerian SMEs therefore, the adoption of effective leadership style especially transformational leadership style is imperative. Leadership style can be

improved through training and development, and policy initiative in the direction of training and development is highly recommended for adoption by agencies of government responsible for SME development (e.g. SMEDAN), trade associations, the organized private sector, and leaders of SMEs.

Innovation will uplift SMEs in Nigeria and will enable enterprises in the country join the league of innovative and entrepreneurial start-ups in technology and manufacturing that are currently running the world. It is not sustainable to be mere consumers of new products and services that were developed elsewhere in the world.

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Appendix A: Permission from Mind Garden Inc. to use MLQ-Form 5X

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Multifactor Leadership Questionnaire™

Instrument (Leader and Rater Form)

and Scoring Guide

(Form 5X-Short)

by Bruce Avolio and Bernard Bass

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As a leader ….

I talk optimistically about the future.

I spend time teaching and coaching.

I avoid making decisions.

The person I am rating….

Talks optimistically about the future.

Spends time teaching and coaching.

Avoids making decisions

Sincerely,

Robert Most

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Appendix B: Eight-Item Instrument Designed by Meeus and Oerlemans (2000)

This section of the questionnaire is to assess the contribution of product and process innovations to your firm's economic performance, as you perceive it.

Rate your firm by answering the following eight questions on a scale with values of (1) to (5) as follows:

Very little, little, not at all, much, very much

1 2 3 4 5

Innovation Performance

What is the contribution of the following eight measurement items to your firm's economic performance?

Ability to introduce new products and services to the market before competitors. 1 2 3 4 5

The percentage of new products in the existing product portfolio. ……1 2 3 4 5

The number of new product and service projects. …….1 2 3 4 5

Innovations introduced for work processes and methods. …….1 2 3 4 5

The quality of new products introduced. ……...1 2 3 4 5

The quality of new services introduced. ……1 2 3 4 5

The number of innovations under intellectual property protection. ……..1 2 3 4 5

Reviewing the administrative system and the mindset in line with the firm's environment.

……1 2 3 4 5

Source: Adapted from Tajasom, Hung, Nikbin, & Hyun (2015).

Appendix C: Permission to Use 8 Item IP Scale by Meeus and Oerlemann (2000)

MM

M.T.H. Meeus <M.T.H.Meeus

Thu 1/3, 5:38 PM

Dear Mr Ossai,

It is with great pleasure that I and Prof. Oerlemans give you permission to use the instrument and underlying measures. I mention and cc Prof. Oerlemans as we developed the survey together.

Yours sincerely,

Prof. Dr. Marius T.H. Meeus

Professor of strategy, innovation and organizational learning

Department of Organization Studies Tilburg School of Behavioural and Social Sciences

Director of Center for Innovation Research at Tilburg University

EO

Emmanuel Ossai |

Thu 1/3, 3:22 PM

Dear Professor Dr Meeus,

I am a PhD candidate of Walden University, Minneapolis, Minnesota, U.S.A. My research focus is on the relationship between leadership styles and innovation performance in small-to-medium-scale enterprises (SMEs).

After an extensive search of the literature I found the instrument you proposed in the article "Firm behavior and innovative performance: An empirical exploration of the selection-adaptation debate" published in *Research Policy 29* (2000) 41-58, suitable for my research.

This is to request your permission to use the said instrument in my research.

I will be very pleased if you would give your kind permission for me to use the instrument.

The permission can be given in a reply to this mail.

Best regards.

Emmanuel Ossai

Appendix D: Approval to provide updated sample frame.

From: Emmanuel Ossai

Sent: Friday, August 3, 2018 11:33:36 PM

To: nrasheed**Cc:** Kayode Olaniyan**Subject:** Re: Request for statistical data for academy research

Dear Mr Rasheed,

Thanks for your mail of July 27th, 2018.

I write to confirm that I am ready to wait for you to complete the on-going update of your business enterprise frame and to subsequently supply the data I requested for.

I shall send you a reminder email at the end of the one-month period of the update.

Warm regards.

Emmanuel Ossai

From: nrasheed**Sent:** Friday, July 27, 2018 11:15:22 AM

To: Emmanuel Ossai

Cc: Kayode Olaniyan; omoabm2

Subject: RE: Request for statistical data for academy research

Dear Mr Ossai,

In response to your letter dated 18th July,2018, I am directed to inform you that there is an on-going update of our business enterprise frame as part of a study on SMEs' and establishments in the country (SMEDAN survey). The Bureau values the purpose for which you

are requesting for the data, and asks that you allow us complete the survey in the next one month, after which the requested data could be made available.

Should you find this arrangement suitable to your timeline, kindly send us a reminder via this email.

Please accept the assurances of the Statistician-General's high esteem.

Appendix E: Promise by EDC to assist distribute and return survey instrument

Re: Request for Data

PB

Peter Bamkole

Reply |

Thu 7/26, 2:42 PM

You

...

Dear Emmanuel

Thanks for your email.

The SMEs provided their info on TRUST to us and as a result, we are unable to share with any third party.

However, if i do have your instrument for the survey, we can assist in distributing and sending to you. We will like to know the number of SMEs that you want the survey administered on and if there is any geographical or age preferences.

Best Regards

Bamky

On 24 Jul 2018 10:44, "Emmanuel Ossai" wrote:

Dear Peter,

Further to our telephone conversation of yesterday I write:

In discussing my current research with Prof Alos he suggested that you could be of help to me in data collection. My research is about leadership and innovation performance in SMEs. The details of the help I would require are as follows:

1. I need a population frame from which I can draw a sample of SMEs. If I can get a list of SMEs that have attended your programs within the last five years I can draw a sample from it.

2. If the list could include e-mail addresses for the purpose of an online questionnaire it would be highly appreciated.

The data is required purely for academic research.

Needless to say, I will be highly indebted to you for your help in making my research a success.

Kind regards.

Emmanuel Ossai